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J O U R N A L O F

CALENDAR REFORM

January, February, March
1947

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ONE WORLD CALENDAR FOR ONE WORLD

VOL. XVII

FIRST QUARTER, 1947

NO. 1

WITH a resolution for adoption of The World Calendar before the Economic and Social Council of the United Nations in a plenary meeting of the fourth session, and reintroduction of a bill in the 80th Congress of the United States, these practical and necessary steps have been successfully taken. The postwar world has taken up the subject as soon as possible.

At Lake Success preliminary studies are under way. Constructive measures have been initiated. Further action at the next Council meeting in July is indicated.

At Washington the bipartisan preliminary action last summer in the House of Representatives and the Senate of the United States Congress produced a virtual referendum. Government agencies have been alerted. Opinion has been formulated and expressed itself, and substantial support has become manifest. Hearings by the Committee on Foreign Affairs are expected during the present session.

The press of the United States has widely publicized the movement. With singular unanimity editorial comment has been favorable throughout the world.

Many governments are reliably reported to be considering similar legislation. A public bill is being discussed in Canada.

The World Calendar is now in the realm of practical politics and international statesmanship. Calendar revision in the near future has indubitably become a real possibility. No matter how you look at it, the prospects for adoption on 1 January, 1950, appear to be excellent.



Congressional Record

United States
of America

PROCEEDINGS AND DEBATES OF THE 80th CONGRESS, FIRST SESSION

Vol. 93

WASHINGTON, MONDAY, JANUARY 27, 1947

No. 18

House of Representatives

MR. JOHN KEE. Mr. Speaker, last July 15, Hon. Karl E. Mundt, of South Dakota, introduced House Resolution 7041 in the second session of the Seventy-ninth Congress. This bill followed his speech clearly setting forth the defects of the present Gregorian calendar and emphasizing the benefits that would be derived by adoption of The World Calendar.

Time and standards of time are not partisan. They are universal and belong to everyone. Agreement was reached by interested Members of both parties that a Democrat and Republican should join in bringing this subject to the attention of the Congress.

Under the rules of the House a bill may not be introduced jointly. Such action, however, is permitted in the other body, and Senators James E. Murray, Democrat, of Montana, and H. Alexander Smith, Republican, of New Jersey, accordingly joined in Senate Resolution 318. The day after the speech by Mr. Mundt, under a prior understanding with him, I addressed the House, fully subscribing to the views he had expressed and undertaking to set forth some additional considerations. I urged that "our Government should assume a position of leadership in this improvement," and that "the action we take here will not only be beneficial to this Nation but will be influential internationally and helpful to humanity."

There was no expectation that the bills would be passed by the last Congress. In introducing a companion bill in the Senate, the Honorable James E. Murray expressed the sentiments of all proponents of such action. He said the action was "in order to bring the matter to the immediate attention of the Members of this body. Of course, this measure cannot be considered during this session. It is to be hoped, however, that during the recess the Members . . . will study the proposal and will be prepared to consider it during the next session of Congress."

The introduction of this proposed legislation has served several additional purposes. The newspapers of this Nation publicized it both in their news columns and editorially. Press comment was extraordinarily favorable and the public response, as measured by letters to editors and to those of us involved in introducing the legislation, showed a widespread interest and favorable attitude. The result of this informal referendum to public opinion justifies, nay compels, us to reintroduce the legislation and press for its enactment. Many important organizations, business, professional, social, and others, have expressed approval, and some have passed resolutions of endorsement. Government bureaus have been induced to study the matter. The governments of many other nations have renewed their consideration of the desirability of adopting The World Calendar. As a result we are informed that similar bills may be introduced in their legislatures as government bills in the case of several nations. Also, a resolution is coming before the Economic and Social Council of the United Nations proposing that it recommend to the General Assembly that The World Calendar be adopted by the nations of the world, effective on January 1, 1950.

It is my privilege in this Congress to reintroduce the bill for the adoption of The World Calendar. I am advised that my colleague, the gentleman from South Dakota [Mr. Mundt], will also address you on the subject.

A slight change has been made in the bill as originally drawn and offered. A phrase has now been incorporated showing that the four quarters of the year approximate the four seasons of the year. This is not a change in the proposed calendar but in our exposition and analysis. I need not stress that the seasons of the year are Nature's divisions. Inevitably, they result in dividing many of the activities of human life into approximately four seasonal periods.

The World Calendar divides the year into four equal quarters of 91 days each. In our present Gregorian calendar there are 90 days, and 91 days in leap years, 91 days, 92 days and 92 days in each quarter. This inequality is complicating and causes many complex, difficult and practically impossible adjustments for statistical and other purposes. In The World Calendar each quarter begins on Sunday and ends on Saturday, contains 3 months, 13 weeks or 91 days. Each quarter is identical with the others. The first month of each quarter has 31 days, followed by two months of 30 days, and each month has 26 weekdays plus Sundays.

The Gregorian calendar has 181 days—and 182 days in leap years—in the first half year and 184 days in the second half of the year. Balance is obviously destroyed. The inequality of these two divisions of the year results in innumerable disadvantages and causes many difficulties. In The

World Calendar each half year begins on Sunday and ends Saturday, and both halves of the year have exactly 182 days. The half years are synchronized with the months.

By a shift of only a few days, eight in all, one being the World Holiday at the end of the year and the other the Leap-Year Day, The World Calendar provides an ordered and reliable time-table for the year. It retains the familiar 12 months of the year. Five months correspond to the comparable days of the Gregorian calendar, namely, January, September, October, November, and December. The dates during the six months between September 1 and February 28 would remain exactly as they are at present.

In short, The World Calendar, a civil calendar, offers a maximum of equalization with a minimum of adjustment. Similarly this affects customs and traditions, and historical dates, scientific calculations and chronometrical usage as little as possible consistent with calendar stabilization.

Briefly summarizing the major benefits that will be achieved by adoption of The World Calendar, let me state them as follows:

First. It will fix the year in perpetuity in accordance with the scientific length of the year and retain the 12 months made familiar by the Gregorian calendar.

Second. It will retain and equalize the half years and make them comparable.

Third. It will reapportion the number of days in the months more equally.

Fourth. It will retain and equalize the quarters of the year.

Fifth. It will provide a uniform grouping of the months in a pattern and sequence of days in each quarter of the year.

Sixth. It will provide 13 complete weeks within each quarter and group these weeks uniformly.

Seventh. It will establish an equal working month of 26 business days plus Sundays for all the months, and will reduce the inequality between the months from a maximum of 3 days to 1 day.

Eighth. It will fix holidays so they will always fall on the same day and date.

Ninth. It will enable each year, half year, and quarter to begin on Sunday, which is retained as the first day of the week, and to end on Saturday, which is retained as the last day of the week.

Tenth. It will for the first time in history give man a Year-End World Holiday set apart from all other days and appropriately dedicated to world peace and friendship, and also a midyear World Holiday every four years, in leap years.

Almost the only standard used in the modern world which changes each year is the present calendar. Under the present Gregorian calendar, a revision of the 2,000-year-old calendar of Julius Caesar, each year varies. Each year starts on a different day of the week, and there are in all 14 calendar patterns and 28 types of months. Holidays grasshop throughout the week. Months vary in length without a consistent pattern. The quarter years are not equal.

Is it not desirable that all the peoples of the world start the year at one and the same time? Is it not preferable that people use the same timetable in their lives? With the speed of communication and transportation, is it not necessary that a single standard of time be used so that we can synchronize plans, harmonize thought, expedite timing, and act in unison?

In the past, calendars have been promulgated by emperors, kings, and high church officials, with the advice of men of science. Today secular power in democracies is vested in congresses and parliaments, and the executive branches of governments. In this Nation the responsibility and duty of revising the civil calendar devolves upon Congress. Let us discharge this obligation in a manner worthy of the representatives of the people of this important and powerful Nation.

PARLIAMENT AT LONDON

The Official Report of the Parliamentary Debates (Vol. 145 No. 37) for Thursday, 27 February, 1947, recorded a discussion in the Parliament at London, England, of The World Calendar, with special reference to the Economic and Social Council of the United Nations. Lord Merthyr earnestly pleaded for full support by the United Kingdom.

Speaking for the Government the Postmaster General (The Earl of Listowel) complimented him on making "a weighty case for a reform of the calendar which we now enjoy, or, as some say, which we now endure because we are unwitting slaves of habit." After some discussion he offered assurances that "if this question should be raised for discussion at the United Nations the British delegation would give it their most serious consideration."



Congressional Record

PROCEEDINGS AND DEBATES OF THE 80th CONGRESS, FIRST SESSION

Vol. 93

WASHINGTON, MONDAY, JANUARY 27, 1947

No. 18

House of Representatives

MR. KARL E. MUNDT. Mr. Speaker, time rules us all. The most powerful and the weakest are equally impotent to stay time. Mighty as is this Nation it cannot add or subtract one second, or a fraction of a second. Time is the master of man and matter.

Each of us exists in relation to time. Einstein rendered a great service to mankind in emphasizing that physicists must consider time and space as indivisible. Philosophers now recognize that all of us exist only in relation to space-time. Nothing is more fundamental or universal than time.

Granting these premises, it is nevertheless true that our measurements and standards of time are determinative of much of our practical lives. Those are man-made creations. In our modern world we are increasingly preoccupied with time and our apparatus and technique for estimating its velocity. Today we figure distance largely in time. We say that New York is 18 hours by air from San Francisco, or 20 hours from London by air. We say that New York is 4 hours from Washington by train or that it is 8 hours by automobile. We measure our radio communication around the world in seconds and our telephone by minutes. Our actuaries talk about life-expectancy statistics in terms of years. Bankers discuss interest in terms of time accumulation. Only recently the Army and Navy of this Government changed their standards for planes on a basis of a uniform time-standard. Many of the disputes of labor are solely based upon working hours. Among our mechanical gadgets none are more in demand than those saving time. Saving time amounts to a preoccupation, if not an obsession. In every way Americans are an intensely time-conscious people, and this is one reason for our rapid progress. A great early American, Benjamin Franklin, once said: "Do not waste time because this is the stuff of which life is made."

Many persons still alive remember when every town in the world had its own time, which was based upon meridian time. Only comparatively recently have time zones been adopted. In 1872, an American, Charles Ferdinand Dowd, and in 1878, a Scottish Canadian, Sanford Fleming, proposed plans for dividing the earth by means of 24 meridians, each 15 degrees of longitude apart, and reckoning from Greenwich. Each such zone represented an hour of difference in clock time. Great Britain passed a statute in 1880 that all her clocks should use Greenwich time. Many other nations followed and similarly set their clocks at the time obtaining in their national capitals, but in relation to Greenwich time.

In 1883, Canada and the United States agreed upon the use of standard time zones. This was done primarily by the railroads of both these nations. With the increasing speed and volume of traffic on the railroads across the continent, it became necessary to have established time zones. Gradually the system was accepted and put into use by the public at large. Yet, not until March, 1918, did the Congress of the United States direct the Interstate Commerce Commission to establish these various time zones, and thus belatedly accepted what had then long become established by commercial and popular fiat and usage.

Greenwich time, the zones of Standard Time, and the International Date Line aroused some opposition when first proposed. There were those reluctant to adopt a new innovation, and they were supported by public inertia. Some religious opposition was recorded.

In considering calendar revision we do well to recall these facts because they are practically identical today with the few instances in which opposition has occurred. It is also very desirable for us to remember that though it be but recently that these changes were made, they have now been so generally accepted, and all opposition and protest have been silenced by universal acceptance, that we recall the previous incidents only with difficulty and amazement.

Standard Time has achieved uniformity and stability in setting the time all around the world. It has proved an enduring benefit contrived by human ingenuity.

We still have other time problems. For one thing we have variations in the exact period of a day, and our astronomers and scientists have been evolving the mechanisms for stabilizing this period of time. The modern astronomer has determined two mathematical formulas with astonishingly exact chronometrical certainty. One is that the earth rotates around its axis with almost precise regularity in close to 24 hours a day. The other is that in its direction relative to distant stars the earth is constant whatever its position in its orbit around the sun. Man has

also devised the chronometer, clock and watch, with the day divided into two periods of 12 hours, with 60 minutes in each hour, and each minute with 60 seconds, and further corrected through astronomical reckonings each day. The comparatively new Arlington radio time signal is familiar to us all.

Our only major time standard in general use which today needs major revision is the calendar. The uninitiated tend to think of the calendar as unchanging and unchanged. Actually, like all contrivances of civilization, the calendar has evolved, and our calendar of today is the product of much trial and error.

The Egyptians used a calendar which had as its inspiration the seasonal Nile floods and then the discovery of an astronomical phenomenon, leading to an estimate of the sun year. This calendar goes back to about 4236 B.C. In 45 B.C. Julius Caesar had conquered Egypt, yet Caesar turned for guidance to Sosigenes, a Greek astronomer living in Alexandria, and upon his advice produced a calendar which ever since has been called the Julian calendar. It established the solar year as $365\frac{1}{4}$ days, divided it into 12 months, and provided for a leap-year day. In A.D. 321 the Emperor Constantine introduced the seven-day week. The B.C. and A.D. system of chronology was added in A.D. 532, and not fully adopted until approximately a thousand years later.

In 1582, only a very short period of the past as measured by history, Pope Gregory XIII found that the calendar was causing the true dates to advance slowly so that ultimately, if unchanged counter-clockwise, Christmas would have come in mid-summer. Pope Gregory consulted scientists, notably the German mathematician Clavius, and dropping ten days to make the adjustment then necessary, promulgated the calendar which bears his name and is used in most nations today. The Gregorian calendar did not meet with immediate acceptance, despite its unquestionable improvement. England and the British Empire did not adopt it until 1752. This is the reason that George Washington, whose birthday we celebrate and venerate on February 22, was born on February 11, under the Julian calendar, and continued to celebrate that date as his real birthday. Japan adopted the Gregorian calendar in 1873, China in 1912, the Soviet Union in 1918, and Turkey in 1927. Calendar change is not new.

On July 15, 1946, it was my privilege to introduce as a bipartisan measure House Resolution 7041. The gentleman from West Virginia, Mr. John Kee, endorsed it from the other side of the aisle, and I am happy to reverse the procedure in this session and support the similar bill he has just reintroduced. I am happy to reciprocate this courtesy. May I call attention to our comments as recorded in the *Congressional Record* of July 15 and 16, 1946?

This was an unusual bill in more than one respect. Probably there has never before been a bill introduced in the Congress which in its terms of reference went back to the year 4236 B.C. and which surveyed the intervening centuries. There are technical aspects of this subject which we hoped to clarify. I strongly urge a careful reading of the entire resolution as now offered. I also urge all citizens, groups, and organizations to make known to Congress their attitudes and wishes on calendar reform.

The world needs stability. We have been living in a period of experimentation and change. There comes a point when mere stability may be a virtue. I say this notwithstanding the fact that I originally introduced in Congress this bill for calendar change. Paradoxically, only by revision may calendar stability be achieved.

The subject has been studied intensively for more than 100 years. The League of Nations spent 14 years considering over 500 calendar proposals and in the end only one proposal seemed to it worth while, and that was the adoption of The World Calendar. Fourteen nations approved and now stand ready to adopt it.

The Christmas and New Year's holidays of 1946-47 are still vivid in memory. You will recall that they happened to fall this year on Wednesday. In other words, they came in the middle of the work-week. The results were unsatisfactory to everyone. Business generally was completely disrupted for two weeks, and the individual also was dissatisfied. Under The World Calendar we would have had two three-day holidays always on the same days and dates.

Our social order is highly complex and interdependent. Time-tables must be uniform and stable for all people because they affect all. The World Calendar is perpetual. It has equal quarters, equal working periods and fixed holidays.

Those of my colleagues who have considered the subject in the interim since I introduced House Resolution 7041 for adoption of The World Calendar, I trust agree that we should not delay. Those who have not found an opportunity to study it I urge to give consideration to this very basic problem and this admirable solution so readily available to us. Public hearings should make clear to us all the advantages of the proposed calendar and also reveal the reasons, if any, why its adoption would be unwise or undesirable.

A few weeks after I introduced House Resolution 7041 in the Seventy-ninth Congress, Senator James E. Murray, of Montana, Democrat, and Senator H. Alexander Smith, of New Jersey, Republican, introduced a companion bill in the Senate. May I point out that this was the first time in the history of this country that a bill for calendar reform had been

presented on the floor of both the Senate and the House and the first time that any calendar bill had ever been presented in this Congress which has had bipartisan support. Time belongs to no party.

Were one compelled to use a single word to describe the United States, none would be more appropriate than progressive. To this continent have come many of the depressed and oppressed, of nearly all the nations of the Old World. The early settlers came to a virgin wilderness; later immigrants found here a primitive country; and even the latest arrivals have felt themselves to be in a young society still in the throes of birth and growth whose future is ahead. All have come to our shores with high hopes and in the expectation of finding a richer and better future for themselves, their children and their children's children. In a comparatively short time a great Nation has been created and developed.

Much is still to be done. Many of the aspirations of man have still not been fully realized. A few years ago, within a decade or two, there was an all too prevalent attitude abroad in this land that the period of exploration, pioneering, and adventure was ended. Now we know this people and this Nation are still but on the threshold of a richer and nobler future. Whatever the faults here we know ours is the highest general level ever attained. Practically every individual would welcome an opportunity to come and stay here. The contrast between the public welfare in the United States and any other country in the world must make us all grateful to the Providence which finds us in this country.

Many factors contributed to make the United States what it is. Courage was one. Work was another. Daring was still another. These led people to leave the familiar and dare the unknown, to uproot themselves and transplant their lives, to seek to fashion their own lives and their new world in the image of their hearts' desire. They have consciously and consistently sought improvement.

New standards of living, new mechanisms to realize their aspirations, new ways of organization have all played a part in producing this Nation. We have been willing to discard old mechanisms in the most mechanized nation of the world. We have raised productivity by substituting new and improved machinery for unparalleled mass production. We have dared to insist upon better and more useful standards.

The time has come for us to lead the way in adopting a modern calendar for the modern world. The United States has a great opportunity to bring into actual operation The World Calendar as proposed in my House Resolution 7041 of the Seventy-ninth Congress and Congressman Kee's resolution which he has introduced today.

80TH CONGRESS

1ST SESSION

H. R. 1345

IN THE HOUSE OF REPRESENTATIVES

JANUARY 27, 1947

Mr. KEE introduced the following bill; which was referred to the Committee on Foreign Affairs

A BILL

To improve the calendar by making it perpetual, by equalizing the quarters of the year, and fixing holidays.

Whereas the calendar now in general use in the United States and most of the other nations of the world has long been the subject of study by many of the brilliant minds of the world, including experts on time measurements and standards, and as a result of protracted and exhaustive study general agreement has been reached that all nations need an improved and perpetual calendar; and

Whereas public and private opinion in the United States and the other nations of the world have been impressively registered, and now demand governmental action to revise the calendar in such a way that retaining astronomical accuracy it will be mathematically and otherwise scientifically correct, unchanging, and holidays will be fixed so they will no longer jump through different days of the week. The familiar twelve months will be divided into equal quarters approximating the four seasons, and equal half-years, with three months, thirteen weeks, or ninety-one days to each quarter-year, together with equal Sundays and weekdays, and each year, quarter, and week beginning on a Sunday and ending Saturday, with the following three

hundred and sixty-fifth day (Year-End Day) that completes the year as a world holiday and the three hundred and sixty-sixth day (Leap-Year Day) in leap years as a midyear world holiday; and

Whereas calendars have been changed through the ages as man's knowledge has increased and his practical needs have been altered by new conditions. The Egyptians adopted a calendar based upon their estimates of the earth's relation to the sun and the cycle of their seasons. Our present calendar is derived directly from their calendar of 4236 before Christ, as distinguished from the Hebrew moon-sun calendar and the Mohammedan moon calendar. In 45 before Christ, Julius Caesar revised the calendar of the Roman Empire, incorporating therein a twelve-month year and an extra day each fourth year upon the recommendation of the Greek astronomer Sosigenes. In anno Domini 321 the Emperor Constantine again revised the calendar by introducing the seven-day week. The before Christ and anno Domini system of chronology was not added to time reckoning until anno Domini 532 and not fully adopted until nearly a thousand years later. In 1582 Pope Gregory XIII adjusted prior calculations by dropping ten days that year. This entailed a loss of two Fridays, two Saturdays, and two Sundays, and one Monday, Tuesday, Wednesday, and Thursday, or one week and three days of that year, and was for the purpose of bringing the calendar back into step with the seasons and to set up a new leap-year rule. This calendar was not adopted by England and the then American colonies until 1752, Japan 1873, China 1912, the Soviet Union 1918, and Turkey 1927. Man has changed his calendar as he has progressed. Despite the tremendous advances of scientific knowledge since the Middle Ages, the vast changes in the life of the modern world requiring comparable calendar changes and widespread dissatisfaction with it, the Gregorian calendar is now in general use by most nations; and

Whereas every calendar has been initiated and adopted first by one nation or by one ecclesiastical authority, and when others have accepted it they have done so one at a time. In the light of past experience one of the world's powerful nations must pioneer the way, by itself adopting The World Calendar. This does not preclude international action; and

Whereas the Committee on Communications and Transit of the League of Nations studied calendar revision from 1923 to 1937 inclusive, and as a result of such studies and a referendum to all governments found agreement in principle on the desirability and necessity of calendar

revision, and fourteen nations, including China, Brazil, Mexico, Chile, Uruguay, Peru, Greece, and Norway, officially approved adoption of the proposed World Calendar. With the war ended, the United Nations established and functioning, and The World Calendar on the agenda of the Economic and Social Council of the United Nations, an opportunity again exists to carry to a successful conclusion the work so well begun at Geneva; and

Whereas since 1930 The World Calendar Association of the city and State of New York has devoted itself to the study of the calendar, also serving as a liaison and central clearing house for similarly engaged calendar committees in thirty-two other nations. The Italian priest, Marco Mastrofini, in 1834, conceived the use of the one or two extra days as a means of stabilizing the calendar, and this is the basis of The World Calendar. This Association actively participated with the League of Nations in its deliberations and the resulting study of the problem by the governments of the League's member-nations. Many of the world's distinguished astronomers, industrialists, educators, mathematicians, and other leaders have collaborated in the Association's research and ratified its findings. Members of its advisory committees are eminent in many fields. The *World Almanac* of 1946 aptly describes this institution as "the world center of calendar authority." The Association recommends to the United States Government the adoption of The World Calendar as the irreducible minimum of change consistent with the maximum of benefit. Not the product of any one mind or one nation, a civil calendar, which leaves the question of changes of religious holidays to the churches interested in them, and National, State, or local holidays to the authorities of the jurisdictions involved, The World Calendar is the solution offered by many of the world's best minds as expressed to and interpreted by this disinterested and altruistic organization, an association of individuals, most of whom are private citizens and who of their own volition and in the tradition of this Nation and democracy have aided in blazing the trail. The problem now has reached the legislative stage; and

Whereas the United States is the world's leading mass-production country and this is largely the result of the creation and application of improved standards. This Nation's rapid progress, unparalleled productivity, and high level of living have been made possible by willingness to discard obsolescent standards and utilize new and improved standards. A new calendar as a time standard is long overdue; and

Whereas transportation companies, communications, advertising, public and private statisticians, accountants and economists, manufacturers, labor, financial institutions, and heads of educational, scientific, social and fraternal organizations, in this Nation and nations throughout the world, have recorded themselves as favoring calendar revision, and specifically as favoring adoption of The World Calendar; and

Whereas it is the consensus of expert opinion that Sunday, January 1, 1950, is the ideal date for adoption of The World Calendar, inasmuch as on that date both the Gregorian and The World Calendars coincide in starting the new year on Sunday, with the result that if the transition is then made it will be in an orderly manner without confusion and permit ample time for the substitution of The World Calendar at the start of the year. Also, this permits the second half of the century to function under The World Calendar. Not until 1956 will the calendars similarly coincide, so enabling legislation should be concluded by the end of the present calendar year to become effective January 1, 1950. This will leave two full years for preparation and if this reasonable period of time is available for adjustments the difficulties of preceding centuries attendant upon adoption of the new calendar will not be repeated; and

Whereas the United States is a member state of the United Nations, the Pan American Union, the Inter-American Economic and Social Council, and other international agencies, and has commensurate responsibilities; and

Whereas the United States should be prepared to assume a position of leadership in the much-needed improvement of the calendar, and by its own action set an example for other governments. The power and influence of the United States, especially considering the prior endorsements of fourteen other nations, might well be a decisive factor in adoption of The World Calendar; and

Whereas The World Calendar should be adopted because it will facilitate comparative statistics and tables, computations of interest, budgets, pay rolls, costs, and the many other operations in which time is of the essence; it will facilitate train, ship, and plane operating schedules and time-tables, and the coordination of communications; it will be a very great convenience by having the dates of anniversaries and holidays fall on the same day each year; and will facilitate the operation of those whose business is especially affected thereby, all to the

benefit of commerce and industry, educational, social, and fraternal organizations, scientific bodies, and others, including each of us individually; and

Whereas The World Calendar should be adopted because under the aegis of the League of Nations, fourteen nations officially approved it. Appropriate agencies of this Government have long studied and approve it. With new international organizations being created to deal constructively with measures seeking world improvement, and public sentiment the world over favoring creative efforts to improve world standards, present conditions are propitious for adoption of The World Calendar; and

Whereas after study and due deliberation on the merits of The World Calendar as against the calendar at present in use, this Congress should recognize that the calendar is the Nation's and indeed the world's standard of time, the measure of every act, and the timetable of our very lives. Being fixed, more orderly and better balanced and equalized than the present calendar, adoption of the revision offered by The World Calendar will not only adjust the calendar to the requirements of our modern world but may well be reflected in greater social and individual stability, better organization of life, and more harmonious relationships: Now, therefore,

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That on and after January 1, 1950, The World Calendar
- 4 hereinafter set out in words and figures shall be the official
- 5 calendar of the United States of America and all the Terri-
- 6 tories subject to its jurisdiction.
- 7 That the President is hereby authorized and directed to
- 8 take appropriate administrative action within a reasonable
- 9 time prior to January 1, 1950. to facilitate the change by

10 the Government and by the public in accordance with this
11 Act.

12 That the President is authorized and requested to urge
13 at the earliest possible date upon the governments of the
14 nations of the world at appropriate conferences that may be
15 held and/or sessions of the United Nations and/or other
16 international bodies, that The World Calendar be adopted,
17 effective January 1, 1950.

1 The World Calendar plan is as follows:

THE WORLD CALENDAR

FIRST QUARTER		
JANUARY	FEBRUARY	MARCH
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7	1 2 3 4	1 2
8 9 10 11 12 13 14	5 6 7 8 9 10 11	3 4 5 6 7 8 9
15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16
22 23 24 25 26 27 28	19 20 21 22 23 24 25	17 18 19 20 21 22 23
29 30 31	26 27 28 29 30	24 25 26 27 28 29 30
SECOND QUARTER		
APRIL	MAY	JUNE
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7	1 2 3 4	1 2
8 9 10 11 12 13 14	5 6 7 8 9 10 11	3 4 5 6 7 8 9
15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16
22 23 24 25 26 27 28	19 20 21 22 23 24 25	17 18 19 20 21 22 23
29 30 31	26 27 28 29 30	24 25 26 27 28 29 30
THIRD QUARTER		
JULY	AUGUST	SEPTEMBER
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7	1 2 3 4	1 2
8 9 10 11 12 13 14	5 6 7 8 9 10 11	3 4 5 6 7 8 9
15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16
22 23 24 25 26 27 28	19 20 21 22 23 24 25	17 18 19 20 21 22 23
29 30 31	26 27 28 29 30	24 25 26 27 28 29 30
FOURTH QUARTER		
OCTOBER	NOVEMBER	DECEMBER
SMTWTFS	SMTWTFS	SMTWTFS
1 2 3 4 5 6 7	1 2 3 4	1 2
8 9 10 11 12 13 14	5 6 7 8 9 10 11	3 4 5 6 7 8 9
15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16
22 23 24 25 26 27 28	19 20 21 22 23 24 25	17 18 19 20 21 22 23
29 30 31	26 27 28 29 30	24 25 26 27 28 29 30
* The Year-End World Holiday, W or 31 December (365th day), follows 30 December every year.		
** The Leap-Year World Holiday, W or 31 June (an extra day), follows 30 June in leap years.		

2 The four hundred centurial leap-year rule of the
3 Gregorian Reform is retained.

ECONOMIC AND SOCIAL COUNCIL OF THE UNITED NATIONS TAKES UP THE WORLD CALENDAR

By Westy Egmont

THE Economic and Social Council of the United Nations ended its fourth session on 29 March, 1947, at Lake Success. The next meeting will convene in July, 1947.

In concluding the last meeting, Sir Ramaswami Mudaliar of India, President of the Council, emphasized that the meetings to date have been largely organizational. The Council has of necessity been largely occupied with creating procedure, establishing commissions and committees, and working out relationships with intergovernmental and non-governmental organizations. The members have been formulating techniques and instrumentalities for collective action.

The scope of the general area to be undertaken by this organization, consideration of specific action and the priorities of various subjects and successive steps, and a survey of ultimate substantive objectives have occupied the Council. Economic, social, educational, cultural and scientific subjects have been tentatively considered. A Secretariat has been organized. Relationships between the members have been established. At the next meeting the Council will be in a position to undertake to act constructively on some substantive problems and seek to attain some concrete achievements.

It was gratifying to its proponents that The World Calendar was on the agenda of the fourth session. The Peruvian Delegation, under the leadership of the Honorable Dr. Alberto Arca Parro, introduced a draft resolution for calendar revision.

During the period between the opening of the conference and the plenary session at which The World Calendar was formally presented, many private and informal discussions were held. They indicated that an overwhelming majority of the members favor adoption, effective 1 January, 1950. Literally no members expressed opposition on the merits.

Those who heard the proceedings of the Council, either by radio or

personal attendance, could not fail to be impressed. Not a single criticism of The World Calendar per se was registered. At least several delegates were prepared to speak in favor of the resolution, and later stated that they had only refrained from doing so because the favorable tenor of the discussion showed satisfactory action would be taken.

The head of the Delegation of China, His Excellency, Dr. P. C. Chang, immediately spoke in support of the resolution and unequivocally registered China's support.

Among other things he said: "The Gregorian calendar was not even considered by China in 1582 when it was first promulgated. In 1912, China adopted it. By that time certain defects of the Gregorian calendar had become clear. It lacked a certain degree of stability, order and permanence. The matter has been studied recently, especially during the last half-century and particularly the last 30 years, by experts all over the world. An improved calendar is surely desirable for the world as a whole."

The Honorable Finn Moe representing Norway stated that he seconded the motion of Peru.

"I have no intention of discussing the proposed World Calendar," he said, "but I wish to make a few remarks. . . . This is not a new question. . . . All of the preparatory work has been done; the merits of the new calendar have been fairly discussed, and quite a series of governments have already accepted The World Calendar."

The resolution thus was brought before the Council by delegates representing nations of the Americas, Europe and Asia.

The final action was to instruct the Secretariat to compile the information available, and prepare a report as soon as possible.

The United Nations has made a start in providing the world with the perpetual World Calendar, fixing holidays, establishing an orderly sequence of days of the month each quarter, and balancing and regularizing the time periods within the year.

An opportunity exists for the United Nations to stabilize the timetable of the years for all the nations of the world so they may start and end each year together and use a common schedule. Impinging on every person in the world, The World Calendar constitutes a public relations vehicle which the United Nations will find a valuable instrumentality in creating awareness of its existence. By improving the calendar everyone will recognize a personal benefit resulting from United Nations' action.

The entirely new and unprecedented World Holiday of The World Calendar will draw favorable attention to the United Nations. This day

for celebrating peace and friendship between the peoples of the earth offers many ways to inaugurate and carry out some of the cultural and educational purposes of the United Nations. Here is an extraordinary opportunity to stimulate public imagination in regard to the significance of this new international organization. The World Holiday would afford the occasion for people in every land to participate personally and on the same date in this holiday. The Secretary General of the United Nations has repeatedly affirmed the desirability of greater public enthusiasm and support for U. N.

A year earlier the first meeting of the United Nations began beside the still waters of Jerome Park Reservoir at Hunter College. A wounded sailor in the audience was then reported to have said: "Well, we've got it started; let's hope it works."

Actually, that meeting was but a part of the beginning of the start. The organizing of an undertaking of such magnitude is nothing short of herculean. Its complexity almost staggers imagination. In that year the United Nations' major organs and subdivisions have held 1,870 meetings, have published 4,500 separate documents, have received 55,000 pounds of letters and packages every month, and sent out 25,000 pounds. A year ago the Secretariat numbered 235; now it numbers 2,800.

When we reflect upon the many years it required to establish the United States as a nation, or when we consider how long it takes to build an effective organization even in a local neighborhood for some limited purpose, we cannot be surprised that this world-wide organization, embracing every conceivable aspect of human life, involving men, women and children throughout the world, needs much time and requires great effort to fashion its foundations.

At this point the United Nations has but acquired the physical land on which to build its permanent headquarters and has drawn plans on paper of the structures it proposes to build. Similarly, it has but begun to establish the political, juridical, and social and economic organization through which the peoples of the world hope it may remake the world in the image of their needs and their dreams.

His Excellency Fernand van Langenhove of Belgium expressed the view of many when he said of the United Nations: "An experiment which is still at its beginning."

The future?

Mankind's future is as though seen through an opaque glass if the future of the United Nations is other than bright.

A NEW AFFILIATE

The South African (S. A.) National Anti-Waste and Conservation Organisation is now an affiliate of this Association, and Dr. J. H. Dobson a member of the World Advisory Committee of The World Calendar Association.

THE South African (S. A.) National Anti-Waste and Conservation Organisation was set up by the South African Government to deal with the exigencies of the war years. Its achievements and successes have led to its continuance on a broader scale with half of required supporting funds contributed by the Government.

This organization has included The World Calendar "on the list of subjects to press upon public opinion in South Africa." This is obviously far more than an endorsement.

At a meeting of the Central Control Committee, held on 6 December, 1946, a resolution was unanimously passed whereby "on the recommendation of the Executive Committee, it was resolved that the National Anti-Waste and Conservation Organisation . . . become the representative in South Africa of The World Calendar Association."

Dr. J. H. Dobson is the Honorary Chairman of the South African Organisation. The Joint Presidents are the Right Honorable Jan H. Hofmeyr, P.C., M.P., representing the Government and the Union Education Department, and Sir Ernest Oppenheimer, representing Gold Mining, Diamonds, Copper, Coal and other industrial activities and public companies.

Dr. J. H. Dobson has become a member of the World Advisory Committee of The World Calendar Association.

A Special Committee is being appointed "to deal adequately with the publicity and propaganda required to assure adoption of The World Calendar."

PROGRESS IN CANADA

THE Canadian Congress of Labour embodied in their presentation to the Dominion Government a resolution which reads as follows: "The Congress recommends that the Government endorse the adoption of a perpetual World Calendar as proposed by the World Calendar Association, incorporated. This is the simplest of all calendar reforms, and has been approved by fourteen nations, as well as by the International Labour Organization. The Government is requested to introduce a Bill in the House of Commons, providing for the adoption of the World Calendar, effective January 1, 1950, and to co-operate in this respect with other governments which take similar action."

PANELS AT NEW YORK

Plans based on a survey of past and future operations are aided by a perpetual calendar



Statistical comparisons are facilitated because days and dates agree



Payrolls and audits coordinate at end of every quarter-year and are equal to one another



MUSEUM EXHIBIT



Holidays,
birthdays,
anniversaries
always fall on
day and date
of occurrence



Budgeting
is easy be-
cause payroll
and interest
periods are
regular



Vacations, school
programs and
sports events
recur exactly
on same days
and dates

EXHIBIT AT THE
OF SCIENCE

WHAT Day is IT?

PRESENT CALENDAR

THE WORLD CALENDAR

S	M	T	W	T	F	S		S	M	T	W	T	F	S
un	ov	e	d	Th	r	it		un	ov	e	d	Th	r	it
							1950							
S	M	T	W	T	F	S		S	M	T	W	T	F	S
un	ov	e	d	Th	r	it		un	ov	e	d	Th	r	it
							1951							
S	M	T	W	T	F	S		S	M	T	W	T	F	S
un	ov	e	d	Th	r	it		un	ov	e	d	Th	r	it
							1952							
S	M	T	W	T	F	S		S	M	T	W	T	F	S
un	ov	e	d	Th	r	it		un	ov	e	d	Th	r	it
							1953							
S	M	T	W	T	F	S		S	M	T	W	T	F	S
un	ov	e	d	Th	r	it		un	ov	e	d	Th	r	it
							1954							

PUSH BUTTON

THE WORLD

AT HOME

EVERYONE WILL BENEFIT



CALENDARS HAVE BEEN USED ABOUT 9000 YEARS

PREHISTORIC CALENDAR

EGYPTIAN CALENDAR

B.C.

4236 B.C.

THE GREGORIAN CALENDAR

THE WORLD CALENDAR
INTERNATIONAL
630 FIFTH AVE

THREE holidays may be followed through the years, by pressing the button which lights the day. A glance reveals the erratic course under the present calendar. Holidays always fall on the same day under The World Calendar. •

NEW YORK MUSEUM OF INDUSTRY

CALENDAR



AT WORK



THE WORLD CALENDAR Twelve Months - Equal Quarters

Each year begins on Sunday	FIRST QUARTER												Each month has 26 week days
	JANUARY				FEBRUARY				MARCH				
	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	
Each quarter begins on Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Each quarter ends on Saturday
	13	14	15	16	17	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	1	2	3	4	5	
Each quarter has 13 weeks	SECOND QUARTER												Each quarter has 91 days
	APRIL				MAY				JUNE				
	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	
	1	2	3	4	5	6	7	8	9	10	11	12	Each Dec. W is a World Holiday
	13	14	15	16	17	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	1	2	3	4	5	
	THIRD QUARTER												
	JULY				AUGUST				SEPTEMBER				
	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	
	1	2	3	4	5	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	1	2	3	4	5	
	FOURTH QUARTER												
	OCTOBER				NOVEMBER				DECEMBER				
	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS	
	1	2	3	4	5	6	7	8	9	10	11	12	
	13	14	15	16	17	18	19	20	21	22	23	24	
	25	26	27	28	29	30	31	1	2	3	4	5	

*The Year-End Holiday, W or 31 December (365th day), follows 26 December every year.

*The Leap-Year Holiday, W or 31 June (an extra day), follows 26 June in leap years.

PERPETUAL - EVERY YEAR THE SAME

JULIAN CALENDAR

45 B.C.

IN USE LESS THAN 400 YEARS

GREGORIAN

1582 A.D.

THE WORLD
CALENDAR

ASSOCIATION, INC.
BUILDING
NEW YORK 20

THE chart on the bottom of the Exhibit shows the relative periods that various calendars were historically in use. Now mankind has the opportunity to adopt a perpetual calendar.

REAL ESTATE AND THE WORLD CALENDAR

By Wade H. Poston

This licensed realtor and expert bank-loan appraiser, rental proprietor, member of the Board of Directors of the New Jersey Taxpayers' Association and President of the Cranford (N. J.) Real Estate Board here shows some effects of the calendar upon the real estate business.

VISIT the office of your local real estate broker. Glance at the wall decorations. Almost invariably, you will see two, three, or four calendars. Glance at the desk tops. More calendars! Real estate men definitely have the calendar on their minds.

Gasoline is sold by gallons, potatoes by pecks, sugar by pounds. Real estate is sold by front feet, acres and *time*.

From his position as a dealer in one of the three classic essentials—food, clothing, and shelter—the real estate broker has a peculiarly vivid insight into the effect of the calendar on America's 40,000,000 homes.

If a home or a business property is leased, the lease is written for a specified term of months or years. The date on which the lease begins is mentioned, and the date on which it ends. A total yearly rent is specified, and the monthly or quarterly dates on which the rental installments shall be paid are detailed. The entire document is dated when made and dated when notarized.

No less important is the role of the calendar in those cases in which a tenant occupies a building on a month-to-month basis, without a lease. This situation frequently occurs in connection with residential properties. In the absence of a written lease, the calendar rights and obligations of both landlord and tenant are prescribed by law in the various states, particularly with regard to the termination date of month-to-month tenancies. The New Jersey law is typical. Month-to-month tenancies may be terminated only by one full month's notice. The notice must be given on or before the rental due date, to become effective on the day preceding the next rental due date.*

Here the law strives for equality, but fails to find it because of the inequalities of the calendar. The tenant who receives his notice to move

*During the present housing emergency, the Office of Price Administration has temporarily set up longer notification periods, which take precedence over the State law.

on 1 February has three days less in which to seek a new home than the tenant who receives his notice on 1 March; and conversely, when a notice is given in the other direction, the landlord has three days less in which to find a new occupant for his property—an interval of some significance in normal times when tenants are scarcer than houses.

Nor are rentals the only reason that the real estate man has the calendar constantly before his eyes. Selling puts an almost equal emphasis on the time factor.

Whenever a property is sold, income and expenses are carefully apportioned on the date of the closing of title, that is, the date on which the deed actually changes hands in accordance with the preliminary agreements made in the contract of sale. Recently, an investor in a nearby community bought a building containing a single large store leased to a retail grocery market at a rental of \$200 per month. The title was closed on 4 March. The March rent had already been paid. How much of this rent was the seller entitled to keep? How much should be given to the buyer?

The seller arrived at my office with his expectations neatly computed in advance. It was very simple. His ownership of the property extended through the first four days in March. March had 31 days. The rent for the month of March was \$200. Therefore, his fair share of the March rent was $4/31$ of \$200, or \$25.81.

The buyer listened attentively, then unfolded a paper and read his calculations. Did not the lease specify that the property was rented for \$2,400 a year, payable in equal monthly installments of \$200? Yes, that was the usual way leases were drawn. The lease had begun on 1 January. There were 31 days in January, 28 in February, and four in March up until the date of closing—a total of 63 days elapsed from the 365-day term of the lease. Therefore, the seller's proper share of the annual rent would be $63/365$ of \$2,400—or \$414.25. Allowing \$200 of this amount for the January rent, and \$200 for February, the remainder for the four days in March would come to \$14.25, instead of \$25.81. A difference of \$11.56!

Now, as an actual matter of practice, does anyone balk at a difference of \$11.56 when closing a sale for \$15,000? The answer is no. But the matter must be explained. One of the other of the alternatives must be agreed upon. Someone must back down; the smoothness of the title closing is disturbed. The broker, always jittery when an important deal is closing, (despite an outward appearance of calm), suffers further wear and tear on his nerves. Time is lost. And the present, awkward, unbalanced calendar, whose vagaries befuddle all attempts to set up appor-

tionment rules that will be both simple and fair, has scored another victory against business efficiency.

The seller's method, having the approval of custom, finally prevailed in this instance. However, a few minutes of reflection will show that the buyer's method, although mathematically more complicated, would have provided the only entirely fair solution.

Both seller and buyer were surprised to learn that a ten-dollar bill, and more, was the monetary difference between the two methods, arising from the fact that the seller's method disregards the differences in the lengths of the months. Our present calendar is indeed a smooth thief. It collects its hidden tolls, without anyone being the wiser.

Those real estate men who take too lightly the importance of the calendar in title closings would benefit by an inspection of the "Customs in Respect to Title Closings" adopted by the New York Real Estate Board and used as a model in many other communities. Of the ten rulings listed, eight refer to the date of apportionment and the method of calendar computation to be used. Rent is apportioned on the basis of the days in the particular month in which the title is closed, but interest, taxes, water rates, and insurance are apportioned by the 360-day method, each month representing $1/12$ of the annual charge, and each day $1/30$ of the monthly charge.

Such "customs" are attempts to tailor the calendar into something workable and simple. With no unfavorable reflection upon their necessity and ingenuity, they may also be looked upon as admissions that the present calendar is too unwieldy for up-to-date streamlined real estate procedures. Furthermore, they are proof that simplicity in the calendar is sufficiently important to be worth spot cash. In the business world, whenever simplified calendar calculations take the place of more accurate, though more complicated, methods, someone gains and the other party loses.

Sales and rentals constitute the bulk of business for most real estate offices, but the battle with the calendar also goes forward on other, minor fronts. Again and again the eyes of the real estate broker turn thoughtfully to the calendar on the wall.

If a mortgage is placed, the term of the loan and the dates for payment of interest and amortization are explicitly set forth.

If a property is appraised, the appraiser must consider the term of any effective leasehold in order to establish a fair appraisal value.

If the real estate agent manages property for others, he must render a monthly or quarterly account of income and disbursements.

If the title to a property is searched in the course of a sale, the report of the search must be scanned to make sure that a continuous chain of dated transactions has been uncovered.

The above examples illustrate the time-factor in only the so-called external activities of a real estate office, involving face-to-face contact with prospects and customers. In a healthy office, the internal activities—accounting, advertising, scheduling and planning—are only slightly secondary. Here gathering of statistics is important. No business depends more on the effective interpretation of long-term trends, nor is any business more subject to seasonal fluctuation and weekly peaks. In most communities, there is a strong spring and fall rental and sale season, broken by relatively quiet periods during the summer vacation season and the winter holidays. In resort cities, the opposite situation may exist. Nearly everywhere, prospective buyers do most of their “looking” over the week-ends. Prospective renters are especially numerous immediately after the first of the month. For all these factors, statistical records of past years show accurately when the greatest business may be expected. The expenditure of the advertising budget and the arrangement of salesmen’s vacations, as well as the division of their work between active field selling and sales planning at the desk, may be more intelligently planned. Even under our present, fluctuating calendar, the future business strategy of the real estate office is most adequately handled when charted from past records. But how much more valuable these records would be if the unpredictable influence of shifting weekdays and wandering holidays could be eliminated.

No, let no one dispute the real estate man’s interest in the calendar, nor wonder at his eagerness for an end to finger-counting methods of calendar calculation. In common with all other business men, he asks: What can be done about it?

If the year obligingly followed our interest computing plan and actually did have 360 days and twelve 30-day months, that would be ideal for real estate and all other businesses. Unfortunately, the business world is not the only controlling factor. Any changes in the calendar must take into consideration the fact that the actual sun-year contains $365\frac{1}{4}$ days. If we arbitrarily clipped our calendar to 360 days, the seasons would start to change their positions, at the alarming rate of almost a week per year; and in the course of about a quarter of a century, January would arrive during Fourth-of-July weather!

But there is nothing in the skies that orders us to have a 28-day month in February, or to have a straggly procession of short and long months arranged without design or pattern. We can at least give ourselves a much more orderly and sensible calendar than the one now in use. The changes required are trifling. No havoc would be wreaked in the smooth flow of dates. All leases, contracts, and other business documents could proceed practically without change.

The real estate man seeks three prime calendar attributes. First of all, the lengths of the months should be made as equal as possible. Exact inequality is forbidden us, because there is no way in which twelve months may be evenly divided into 365 days. However, if we make four of the months 31 days long, and the remaining eight months 30 days long, we will have a total of 364 days. The 365th day may be readily added to the year by a convenient method to be discussed later.

Secondly, these months of 31 and 30 days should be arranged in an orderly, symmetrical pattern. A little experimentation will quickly show that the best method is to have the first month of every quarter-year long, and the remaining two short. By using this pattern, the four quarter-years are made equal—each is 91 days long. Under the present haphazard arrangement of the months, the lengths of the quarter-years (as determined by each period of three full months) vary from 90 to 92 days!

The new equality achieved by the quarter-years under the revised calendar would make this now neglected unit of time of special value to real estate. It has long been felt, particularly in the case of long-term industrial and commercial leases, that monthly rental installments are unnecessarily frequent, serving only to generate extra bookkeeping and paperwork. In most cases, quarterly payments would be welcomed by both parties to such leases. The stimulus to general adoption of the quarterly payment plan would be provided by the equal-quarter years of the new calendar.

Also, the lengths of the half-years would be made equal, each 182 days. Under the present calendar the last six months of the year total three more days than the first six months. Score: 184 to 181.

The third desirability in the real estate man's ideal calendar is that every year must be the same. The absurdity of having weekdays fall on different dates every year is perhaps the most troublesome of all the faults of our present calendar. If it is necessary to name a future date in a real estate document, such as setting the title closing in a contract of sale, someone must leaf through the calendar to determine whether or not the proposed date falls on a Sunday or a holiday. If the date happens to fall within the next calendar year, someone must hunt up the almanac.

Now, there is both a simple reason for the above difficulty and a simple solution. We often think of the year as containing exactly 52 weeks. Actually, this is not the case. Our present calendar year of 365 days contains $52\frac{1}{7}$ weeks and $52\frac{2}{7}$ weeks in leap year. Hence, every year ends by jutting over one or two days beyond the allotted span of 52 weeks. This year, 1947, began on a Wednesday; 1948 will begin on a Thursday, and 1949 (because of leap-year day in the preceding year) will begin on a

Saturday. To look at it in another way, the year holds a steady pace, while the weeks run "fast." Trying to organize one's business by this calendar is like trying to catch trains with a badly geared watch, in which the long hand circles 65 minutes in an hour while the short hand runs on time.

To see how this situation may be cured, let us pick out an ordinary year, such as 1950, which starts on a Sunday. And now, let us page through the 1950 calendar to about mid-December . . . 15 December falls on a Friday, 20 December a Wednesday, 25 December on a Monday, 30 December a Saturday. If only 31 December could be skipped! Then 1 January, 1951, like the preceding year, would also fall on a Sunday; and 1950 and 1951—and all years thereafter, provided the same method were followed—would be exactly alike, with weekdays and month-dates forever linked together.

Skip 31 December! Is it possible? Well, let's see, we already do something like that in leap year, when we add an extra day to February to catch up to true sun time. Suppose in this case we merely add an extra day at the end of the final week in the year. Then, 30 December, 1950, would continue to fall on a Saturday; 31 December would fall on the extra day, and 1 January, 1951, on a Sunday. And there we have it!

As a further refinement, 31 December should be a holiday named, say, Year-End Day, in order to maintain the 31-30-30 quarter-year pattern during the final quarter of the year in our new calendar, and to emphasize the distinctive character of the day—not a day of any month nor of any week, but a day of the year.

Year-End Day would serve a further purpose beyond taking up the annoying slack which now exists between weeks and years. Previously, we have pointed out that the desirable equal-quarter calendar of four 31-day and eight 30-day months makes up a total of 364 days. Year-End Day would provide the one extra day required to round out the full year. Our ideal business calendar is now complete!

The above changes are not mere idle speculation. They have already been worked out in detail in *The World Calendar*, a new and businesslike method of measuring time proposed for world-wide adoption on 1 January, 1950. This modern calendar provides for all three of our specified desirabilities: months made more equal in length; months symmetrically arranged, with corollary exact equality of the quarter-years and half-years; and dates and weekdays joined permanently together, with every year the same.

The changes required from the old calendar may be summed up in a breath. February has gained two days (a reform long overdue!); April,

formerly 30 days long, has gained one day; and March, May, August, and December, formerly each 31 days long, have each been shortened by one day. The other months remain exactly the same. Leap-Year Day is handled the same way as Year-End Day, by intercalating an extra day. However, we will no longer give this extra day to February, which in the new calendar has already been increased to the respectable length of 30 days. Instead, it may be inserted at the logical mid-year point, between 30 June and 1 July of every fourth year. Like Year-End Day, it will owe allegiance to no week nor month, but be truly and appropriately a holiday of the year.

With the adoption of The World Calendar, the majority of the date difficulties of real estate offices will come to an end. With more equal months arranged in a repeating pattern, new equity will be achieved in leases and month-to-month tenancies. Larger rentals will shift to the new equal quarterly basis, with consequent economies in accounting procedure, particularly in those offices which specialize in property management. Because all years will be alike, accurate, uncomplicated and permanent tabulations can be figured, once and for all, to determine the just apportionment of income and expenses when property is sold. The computation of interest on mortgages, insurance, taxes, water rates, and the host of other figures that go into the sale and rental of real estate will be made easy. To determine the weekday on which any future date will fall will become as simple as twelve times twelve, and as effortlessly remembered. The internal machinery of the real estate office will acquire new smoothness based on statistics free from calendar errors. Customers and prospects will be more adequately informed on their own financial status, reflecting the efficient operation of household budgets under The World Calendar pattern of more nearly equal months and identical years. In fact, the number of income-earning days in a single month will always be exactly the same, that is, 26 days. Budgeteers will be able to plan ahead for their home more accurately than ever before.

I would like to call the attention of my fellow real estate men to one final aspect of the new World Calendar. An inspiring proposal has been made in connection with the two new stabilizing days devised by this calendar, which we have called Year-End Day and Leap-Year Day. The suggestion is that these days be set aside as universal holidays, dedicated to permanent peace, on which men of all nations, races, and creeds will renew their pledges for the security and happiness of homes throughout the world. On this note, transcending considerations of business, we may indeed join our voices to call for the speedy adoption of The World Calendar.

A NEW CALENDAR

By A. J. Vincent, Associate Editor of The Notre Damean

The students of that distinguished Catholic institution in the United States, the Notre Dame Seminary, publish a quarterly "with ecclesiastical approbation." This article appears in the issue dated January 1947.

AS old as the counting of time, and therefore as old as the history of civilized man, is the problem of the calendar. As long ago as the beginning of recorded history in Egypt, men realized that there was a cycle in the seasons of the earth which depended on what they thought was the rotation of the sun around the earth. It did not take long to conceive the idea of counting the number of days in the complete cycle, and making that number of days the standard of time measurement. The earlier attempts, however, made an effort to keep up not only with the sun, but also with the phases of the moon. Thus, we have the Jews of ancient times using a luni-solar calendar which they adopted from the Sumerians of the Tigris-Euphrates region. Since their month consisted in the time that the moon took to pass through its phases, it contained only about twenty-nine and a half days, and the year, accordingly, lasted only about 354 days. But since the cycle of seasons depending on the sun consumed some 365 days, the lunar year was short by about 11 days. To meet this deficiency, an extra month was inserted every third year.* An adaptation of this system is still in use today as the Jewish religious calendar.

The early Roman calendar was similar to the Jewish one, except that the Romans had no definite rules concerning the extra months. By the time Julius Caesar came to power, the carelessness in the matter had resulted in the ridiculous situation of the calendar's being a whole season wrong. When the calendar indicated the beginning of spring, the weather indicated the beginning of winter. Caesar, eager to do something about the situation, called the astronomer Sosigenes from Alexandria, and with his help devised what was known as the Julian calendar. In the new system, the moon was ignored, and the year divided into twelve months of almost equal length, making 365 days in the year. Realizing that the year really consisted of about $365\frac{1}{4}$ days, he added an extra day to the month of February every fourth year. After a few shiftings of days from one month to

* EDITOR'S NOTE: The Jewish calendar is based on a 19-year cycle with seven intercalations.

another, the calendar finally assumed the form which we still use. But there was one serious error in it. The year is actually about 11 minutes shorter than the $365\frac{1}{4}$ days which Caesar and Sosigenes had calculated. The error amounted to almost one day every 128 years, and by the year 1600, it was nearly two weeks wrong.

Because the spring equinox determined the date of Easter, Pope Gregory XIII, in 1582, decided to bring the calendar date for the equinox back to the actual solar date. He called together a special commission, and after a thorough study of the question, they decided upon two important changes.

GREGORIAN REFORM

The first change was to correct the ten-day error, by decreeing that the ten days following 4 October in 1582 should be dropped, and that 4 October of that year should be followed by 15 October. This caused all sorts of confusion, particularly among some of the more simple folk, who thought their entire lives were being shortened by almost two weeks, and also in the Protestant and Schismatic countries, which would have nothing to do with the Popish plottings against the laws of nature. In fact, England did not adopt the change until 1752, and Russia not until 1918. Turkey kept the Julian calendar until 1927, and it is still used in the Greek Orthodox Church.

The second change which Pope Gregory introduced was his famous leap-year rule. This rule is as follows: Every year whose number is divisible by 4 is a leap year. Century years are not leap years unless divisible by 400. This calculation was so exact that it averages an error of only 26 seconds per year, and it will take the calendar some 3,300 years to accumulate a single extra day!

THE PROBLEM

But the Pope left the Julian calendar otherwise unchanged. And ever since his time, mathematicians and astronomers have been trying to reform the internal structure of the 365-day year. The problem is to divide the 365 days into a number of equal months. Under the present system we have 52 weeks and one day over, arranged into seven months of 31 days, four months of 30 days, and one month of 28 days (in leap years, 29 days). In this arrangement, the two halves of the year are of unequal length, and even the quarters within the same half are not the same. Moreover, because of the one day more than 52 weeks, the first day of the year constantly changes from one day of the week to the next, and if we include the leap years, we find that there are 14 different patterns for the ar-

rangement of the days in the year, and that these patterns follow each other in a complicated cycle that takes 400 years to complete itself!

Obviously, the crux of the whole question is the extra day, or, in leap years, the two extra days. Auguste Comte suggested a sort of 13-month arrangement as a possible solution almost a century ago, but the plan was too impractical to be seriously considered. The first practical suggestion came from an Italian priest, the Abbé Mastrofini, in 1834. His plan was to insert an extra day between the last day of December and the first of January. In leap years, a second extra day would be added. This suggestion has been put into a very practical form in *The World Calendar*. According to this proposal, the year is divided into four quarters of three months each (keeping the same names of the months that we now use), with 31 days in the first month of each quarter and 30 days in each of the other two. The four quarters are alike in every respect, and the first of the year always falls on Sunday. Changing to such a calendar would bring inestimable advantages to Industry, Labor, Transportation, Communications, Finance, Law, Educational Programs, Merchandising, Government and World Relations.

CALENDAR AND CHURCH

But the question always comes up: What about the Church and the Liturgical Year with its feast days? A glance at the more important statements from ecclesiastical authorities will give us a fairly clear notion of the mind of the Church in the matter. To begin with, the whole idea came originally from the Italian priest, Abbé Mastrofini. Then, in 1896, M. Foerster, Director of the Observatory of Berlin, tried to work out a plan for fixing Easter on one particular Sunday once and for all. He received a rather encouraging note about the plan from Cardinal Rampolla, Vatican Secretary of State at the time. In 1898, *Ephemerides Liturgicae* published a series of articles favoring the reform, and a rather powerful movement arose in the Balkans, but like its predecessor under Foerster, the movement died in its infancy.

A little known, but nonetheless important development, important because it came from those whose concern with the Liturgical calendar is so patent, occurred in 1907. In that year, the superiors of all the Benedictine Congregations met in Rome under the presidency of Dom Guépin of Solesmes. The purpose of the meeting was to discuss the proposed reform of the monastic breviary. While the sessions were in progress, the question came up of calendar reform, and a unanimous vote was given for the reform both of the calendar and of the date for the celebration of Easter.

When the Congress of Boston met in 1912, the question was finally pre-

sented to the Vatican, and the matter of actually instituting a universal and invariable calendar with a fixed date for Easter was referred to the Pope for ultimate decision and decisive action. Pius X declined to take the initiative, stating that the reform of the civil calendar belonged rather to the civil authorities; the Holy Father, however, approved the principles of the reform, and assured the world that the Church was ready to adapt its religious year to the new calendar if and when it should be introduced. And it is reliably reported that Pius XI once said to the late Cardinal Baudrillart of the Catholic Institute of Paris, that he was inclined to admit the need for fixing the date of Easter and that it might be done to great advantage.

To supplement these evidences from authority that the Church has no objection to the new calendar, in fact, even encourages it, Dom Cabrol published an article in 1911 giving the reasons why we should be justified in disregarding the moon in our determination of Easter, and fixing it on a definite day for every year. The eminent French authority on the liturgy, Abbé Chauve-Bertrand, has taken up the work of Dom Cabrol and the Benedictines, and adds the proposal to begin the year with the winter solstice, concluding with the question: "What Julius Caesar dared not do (nor later, Gregory XIII) why cannot we accomplish today?"

PRACTICAL PROPOSALS

In recent years the movement has become more active and organized, and has put forth a number of highly practical ideas. Foremost among the proponents of the change is The World Calendar Association, Inc., with headquarters in New York. This organization has correspondents in all parts of the world, and has done more than any other for bringing about the desired reform. The Association publishes a quarterly *Journal of Calendar Reform* which presents the last word on current angles of the question. It is this Association which has promoted the plan to change from the Gregorian to the new calendar on 1 January, 1950. For in that year, 1 January of the Gregorian calendar and 1 January of the new calendar both fall on the same day of the week, Sunday. No one who considers the advantages of the change can long entertain any serious objections to this plan, since the only really noticeable change as far as everyday life is concerned would be to make all the quarters alike, and the moving of leap-year day from the end of February to the end of June.

The most recent and probably the most important development toward the reform was the introduction of a bill into the House of Representatives of the U. S. Congress on 15 July, 1946. This bill has for its purpose "to improve the calendar by making it perpetual, by equalizing the quarters of

the year, and fixing holidays." Action on the bill was not expected until the next Congress should convene, but the prospects for the change are promising. It is significant that the bill was introduced under bipartisan auspices. The calendar which it proposes is the one known as The World Calendar, the one proposed by The World Calendar Association. It has the endorsement of business men, astronomers, ecclesiastics, and almost all other professional groups.

THE EXTRA DAY

The only aspect of the change that might give rise to some difference of opinion is the question of what to do with the extra day at the end of the year. The World Calendar Association would make it an international holiday, while a more specific suggestion was made by Congressman Karl E. Mundt, who in an address to the House of Representatives last July proposed "that the final day of each year . . . be set aside as a world holiday to be known as Universal Peace Day and dedicated in every country of the world to the important task of building in the hearts and minds and souls of all mankind the precepts of thought and the habits of action which will lead to permanent peace and universal equity." The idea is commendable, but a better plan might be to allow the Church to designate a religious festival for the Year-End Day, and carry out our civic celebrations accordingly. When it is a question of "building in the hearts and minds and souls of all mankind precepts of thought and habits of action," the question is no longer primarily civil, but religious.

If the proposed legislation becomes law, it will naturally affect only the United States. But, in a world which has learned to look to America for military strength and material progress, such a change would no doubt serve as an incentive for similar action in other countries. After centuries of arguing and agitating, the needed reform at last seems to be nearing actuality. It will apparently be the honor of the United States to make the decisive step.

ENDORSEMENTS

THE American Association of Scientific Workers on 22 February, 1947, adopted a resolution approving The World Calendar. Word has come from "down under" that the Wellington Branch of the Royal Society of New Zealand has taken similar action.

STATEMENTS BY GOVERNMENT OFFICIALS

This compilation of excerpts from the statements by government officials lists their position at the time of their pronouncement.

JAMES V. ALLRED,
Governor of Texas.

I shall be glad to cooperate.

W. T. BAWDEN,
Assistant Commissioner of
the United States Office of
Education.

Simplification of the calendar is greatly needed in the educational field.

HENRY W. BEARCE,
United States Bureau of
Standards.

The most satisfactory arrangement is to have each quarter of the year contain one 31-day month followed by two months of 30 days each.

L. P. BETHEA,
Assistant Secretary, Board of
Governors, Federal Reserve
System.

We hope for further progress in the movement.

WILLIAM A. BLAIR,
Chairman, State Board of
Public Welfare, North Carolina.

Keep up the good work.

ERNEST R. BRYAN,
Chief, Division of Information,
National Archives.

Your calendar plan has much to commend it.

ROBERT J. BULKLEY,
U. S. Senator, Ohio.

I feel very favorable to the suggestion.

ARTHUR CAPPER,
U. S. Senator, Kansas.

I am favorable to this proposal.

LYMAN CARRIER,
Chief Agronomist, Soil Erosion
Service.

I am entirely in favor of your plan.

FRANK COUZENS,
U. S. Senator, Michigan.

I will be very glad to approach the matter sympathetically.

WILBUR L. CROSS,
Governor of Connecticut.

I approve of an international convention to take action.

COLGATE W. DARDEN, JR.,
Congressman, Virginia.

The suggestion meets with my approval.

- FREDERIC A. DELANO,
Chairman, National
Resources Planning Board. I hope you succeed.
- ANTHONY J. DIAMOND,
Congressional Delegate,
Alaska. I am in favor of the calendar reform suggested.
- D. J. DRISCOLL,
Congressman, Pennsylvania. I have been interested for a long time.
- MATTHEW A. DUNN,
Congressman, Pennsylvania. I can see no reason why anyone would hesitate to support such a progressive move.
- JOSEPH B. EASTMAN,
Federal Coordinator of
Transportation. For the railroad industry reform of the calendar would have marked advantages.
- ANDREW EDMISTON,
Congressman, West Virginia. I shall be very glad to do what I can to cooperate.
- E. ELLSBERG,
Commander, U.S.N.R. The World Calendar offers the best solution.
- JOSEPH B. ELY,
Governor of Massachusetts. Both suggestions seem sensible.
- JOHN H. FAHEY,
Chairman, Federal Home
Loan Bank Board. I am glad to see that progress is being made.
- ROBERT FECHNER,
Director of Emergency Con-
servation Work. The United States could well assume the responsibility for international action.
- PHILIP B. FLEMING,
Major General, U.S.A., Ad-
ministrator, Federal Works
Agency. I have felt for a long time that the present calendar is a pretty awkward instrument.
- P. L. GASSAWAY,
Congressman, Oklahoma. I will very gladly support a measure to that effect.
- RALPH F. GATES,
Governor of Indiana. Mem-
ber Governors' Advisory
Committee of The World
Calendar Association. I can see where this proposed plan contains much merit . . . I will consent for you to consider me on your Governors' Advisory Committee.
- GUY GILLETTE, III,
Congressman, Iowa. Calling of an international convention strikes me as a good method of approach.
- E. E. GOOD,
Judge, Nebraska Supreme
Court. Calendar reform is greatly needed for business of all kinds, especially for courts. . . .

- FINLY H. GRAY,**
Congressman, Indiana. I am greatly interested in the principle of the stabilized calendar.
- PAUL R. GREEVER,**
Congressman, Wyoming. It looks very reasonable to me.
- W. R. GREGG,**
Chief of the United States Weather Bureau. I am keenly interested in this subject.
- ANTHONY J. GRIFFIN,**
Congressman, New York. I shall do all I can to promote its adoption.
- JOSE GUIASOLA,**
Admiral, Chief of Staff of the Argentine Navy. May I recommend to the people of the United States that they study The World Calendar and accelerate the world-wide movement for its adoption.
- FREDERICK HALE,**
U. S. Senator, Maine. The World Calendar undoubtedly has many advantages.
- J. F. HELLWEG,**
Commodore, U.S.N. (Ret.), Superintendent of the United States Naval Observatory. My advice . . . devote our energies to the only proposal which meets all the requirements of the situation with a minimum of upheaval and a maximum of benefits.
- CLYDE LaVERNE HERRING,**
Governor of Iowa. I shall favor any plan whereby the aims indicated may be carried out.
- F. F. HILL,**
Governor, Farm Credit Administration. We are interested in any constructive steps taken in this direction.
- FRANK T. HINES,**
Administrator, Veterans Administration. It would doubtless accomplish much toward simplifying operations.
- R. P. HOBSON,**
Rear Admiral, U.S.N. (Ret.) The purpose of your calendar is as deep as the life of humanity.
- JOHN B. HOLLISTER,**
Congressman, Ohio. I am heartily in favor of calendar reform.
- HENRY HORNER,**
Governor of Illinois. Calendar reform is now ripe for action.
- E. M. HOUSE,**
Colonel. I hope you may be successful.
- HAMILTON F. KEAN,**
U. S. Senator, New Jersey. I am in favor of your plan . . . will do anything to help you.
- JEFFERSON R. KEEN,**
General, U.S.A. (Ret.) I will always have a good word to say about The World Calendar.

ISADOR LUBIN,
United States Commissioner
of Labor Statistics.

I am fully in accord with the resolution.

PAUL V. McNUTT,
Governor of Indiana.

I am heartily in favor of the proposed World Calendar.

JAMES R. MEAD,
U. S. Senator, New York.

A universal plan initiated at an international convention should prove effective.

SCHUYLER MERRITT,
Congressman, Connecticut.

I hope the reform may be accomplished.

WILLIAM A. MOFFETT,
Rear Admiral, Chief of the
Bureau of Aeronautics of the
United States Navy.

A revised calendar is inevitable. . . . The movement is making slow but steady progress toward acceptance.

A. HARRY MOORE,
Governor of New Jersey.

The initiative for this calendar reform may very properly come from the United States.

ARTHUR E. MORGAN,
Chairman, T.V.A.

I am in favor of international action on calendar revision.

**WILLIAM FELLOWS
MORGAN**

I heartily approve the calendar reform.

WILLIAM H. MURRAY,
Governor of Oklahoma.

I agree with you on this proposition.

THOMAS O'MALLEY,
Congressman, Wisconsin.

The United States could be the prime mover in this.

JOHN O. PASTORE,
Governor of Rhode Island.
Member Governors' Advisory
Committee of The World
Calendar Association.

I shall be happy to serve as a member of your Committee.

E. B. PATTON,
Director, Division of Statistics,
Department of Labor,
New York.

I am heartily in favor of The World Calendar.

GIFFORD PINCHOT,
Governor of Pennsylvania.

I am heartily in favor of this project.

JAMES P. POPE,
U. S. Senator, Idaho.

I will be glad to cooperate in any way possible.

HERBERT H. RAPP,
Assistant Chief, United States
Bureau of Efficiency.

The perpetual feature of the new calendar will be a tremendous boon to every business that makes comparisons with previous records.

DAVID AIKEN REED,
U. S. Senator, Pennsylvania.

The suggestion would meet with my entire approval.

- ALBERT C. RITCHIE,**
Governor of Maryland. The subject naturally interests me.
- L. S. ROWE,**
Director General, Pan American Union. I am personally strongly in favor of calendar reform.
- LEONARD W. SCHULTZ,**
Congressman, Illinois. I will be happy to support it.
- BYRON N. SCOTT,**
Congressman, California. There is every reason for revision and practically no reasons for objecting.
- ALEJANDRO SERANI,**
Chilean Minister of Labor. This Ministry finds such a project very advantageous.
- DAVID SHOLTZ,**
Governor of Florida. Will be pleased to do what I can in this connection.
- C. DAVID STELLING,**
Honorary Secretary, Parliamentary Committee on Calendar Reform, London. Once the new calendar has been instituted, we shall wonder why we were so long in bringing about so simple and advantageous a change.
- ELBERT DUNCAN THOMAS,**
U. S. Senator, Utah. I favor calendar reform and am not opposed to our country taking the lead.
- W. H. THOMPSON,**
U. S. Senator, Nebraska. I favor a change in the calendar.
- WILLIAM M. TUCK,**
Governor of Virginia. Member Governors' Advisory Committee of The World Calendar Association. I shall be glad to do anything I can to assist you in your undertaking.
- F. B. UPHAM,**
Rear Admiral, U.S.N. I am indeed happy to learn of the progress being made.
- C. B. VINCENT,**
Consul General, Haiti. The World Calendar will remove annoying friction.
- JAMES W. WADSWORTH,**
Congressman, New York. . . . It appeals to me at first flush rather strongly.
- MABEL WALKER WILLEBRANDT**
I am very much in sympathy with the movement.
- RANSOME J. WILLIAMS,**
Governor of South Carolina. Member Governors' Advisory Committee of The World Calendar Association. It will be a pleasure for me to accept and I will be glad to cooperate in any way possible.

CURRENT PRESS COMMENT

New Year—New Calendar?

Lincoln (Ill.) Courier

2 January, 1947

THE beginning of a new year means that each of us, whether we be a government, corporation or individual, must use a new calendar. The world has today finally attained a standard clock and comparatively recently adopted standard time, the international date-line and fixed time zones.

Almost the only standard used in the world which changes each year is the calendar. Under the present Gregorian calendar, a revision of the calendar devised by Julius Caesar 2,000 years ago, each year differs. The year starts on a different day of the week. Holidays jump like grasshoppers all over the week. Months vary in length without a consistent pattern. The quarter-year is not stable. Is it beyond man's ingenuity to devise a perpetual, stable, fixed calendar?

Such a calendar has been in the making. Over a hundred years ago, in 1834, a priest suggested that the calendar be fashioned on the basis of 364 days, and that the 365th day, and a leap-year day, be treated as extra days. This principle has been adopted by calendar reformers ever since. The League of Nations studied hundreds of calendar plans and finally discarded them in favor of the 12-month equal-quarter World Calendar.

In the closing days of the last session of the Congress of the United States bills were introduced under bipartisan auspices in both the House and Senate for adoption of The World Calendar, 1 January, 1950. This date was suggested to allow the time necessary to prepare for the change; and on that date both the present calendar and The World Calendar begin the year on Sunday, and thus the transition would be hardly perceptible.

The World Calendar has also been placed before the United Nations as a desirable change in the interest of commerce, industry, education, science and all other activities of men in all nations, and for the benefit of international life.

How desirable it is that all the peoples of the world start the year at the same time! Is it not obviously preferable that people use one time-table for their lives? With the speed of communications and transportation, is it not absolutely necessary that a single standard of time regulate the lives of everyone on earth if we are to synchronize plans, harmonize thought and act in unison?

The United States has long been a pioneer and leader of the world in establishing and improving standards for production. Too long has improvement of the time-table of our lives been deferred. It is to be hoped that Congress will act favorably in regard to The World Calendar when legislation is reintroduced during the session which convenes 3 January.

The World Calendar has been officially approved by Afghanistan, Brazil, Chile, China, Esthonia, Greece, Hungary, Mexico, Norway, Panama, Peru, Spain, Turkey and Uruguay. Many other nations are ready to do so. Quite possibly all will do so. The immediate task for full presentation of the subject, its study and an opportunity to register the decision of the nations of the world is the responsibility of the United Nations.

Let us hope that our archaic and obsolete calendar, promulgated in 1582, will be replaced in 1950 by The World Calendar.

Calendar Reformer

London (Eng.) Evening News

February, 1947

VISIT to this country, a fortnight ago, of elderly, grey-haired Miss Elisabeth Achelis, President of The World Calendar Association, seems to be bearing fruit. She flew from New York to convert Britain to a 364-day calendar plus an extra day.

Now I hear that Lord Merthyr is to urge the Government in the House of Lords today to support — at next September's U N O session—the adoption of a reformed calendar.

EXCERPTS AND REVIEWS

Congress Makes New History

By FRITZ FALKENBERG

From Current-Argus, Carlsbad, N. M., 10 November, 1946

FOR the first time in the history of the United States the Congress has officially considered the subject of Time with relation to the passing of the days and years and into the centuries ahead.

Congress, since its birth, has considered Time in other regards, such as setting the hands of the clock back and wasting it, but the 79th Congress actually has a House Resolution in the hopper having to deal with the acceptance of The World Calendar already endorsed by many nations and by hundreds of scientific, business, education, labor, fraternal groups and chambers of commerce as well as independent clubs.

New Calendar For Business

By DR. ROY K. MARSHALL

Science Editor

From "Days of Our Years," Philadelphia Bulletin, Pa., 28 January, 1947

IF you're a businessman, you have probably looked through the 1947 calendar to see how the holidays and week-ends fall. It's important to you, if your margin of profit is small and your net profit depends on steady volume, to see just how you must plan your advertising for the year, to circumvent the vagaries of the calendar.

The attitude of many toward the calendar is that it's a poor thing, but our own. It could become a more useful framework for our activities and only lethargy will prevent this desirable end.

Calendars Are Snappy

By JOHN F. SEMBOWER

From News, Ironton, Ohio, 27 December, 1946

DON'T take that new 1947 calendar too much for granted. Ask almost any astronomer, and he will tell you that when you junk the old calendar and hang a

bright new model in its place, you really will be throwing away a mighty fine time-piece and putting another one in its place.

He would probably also assure you that the recorder of our days, weeks, months and years is more wonderful than the finest watch that we use to measure seconds, minutes and hours. But instead of setting it right now and then, as you do with a watch, we replace it altogether every 12 months to keep it up-to-date.

Far from taking the calendar as a matter of course, as most people seem to, the astronomers have been quarreling since the beginning of time over how it should be set up.

The calendars that will clutter the ashcans in a few days, as well as their replacements, are known officially as Gregorian calendars.

The modern calendar is so accurate that it will take 3,000 years for an error of a single day to accumulate, but such exactness is a comparatively recent development and still does not satisfy some of the experts, like those at the famous Adler Planetarium in Chicago, where calendar research continually goes on.

Some of the stargazers, pointing out that no major changes have been made for a long time in the calendar we use, argue that already we are in a rut so far as the calendar is concerned. They point out that it is a time-honored custom to modernize the calendar, and that it should be done whenever a better idea comes along.

England and the American Colonies, for instance, adopted a calendar reform a couple of centuries ago that dropped 11 days out of existence. They had to do it because the old calendar's clutch was slipping and the seasons were getting out of kilter.

Although winter was stopped from working gradually around toward summer on the calendar, historians have had a headache ever since over those lost days. They point out that when George Washington was born the calendar on the wall read

11 February, not the 22 February we celebrate.

At the bottom of all the trouble over the calendar is the fact that it is purely man-made, and man has no control over the movements of the universe which he tries to time.

The World Calendar

From The National Catholic Almanac, 1947.
Holy Name College, Washington, D. C.

THE year is composed, roughly, of 365½ days. In our Gregorian calendar, the extra quarter of a day is set aside until every fourth year, which then counts 366 days instead of 365 and becomes a "leap year."

Neither 365 nor 366 is exactly divisible by 7, the number of days in a week. Hence, successive years begin on different days and have different patterns. To remedy this, various "reforms" have been suggested.

One general class of such suggestions would give each year 364 days, and instead of counting the extra day (two days in leap years) in the ordinary line-up of weekdays, the extra day (or days) would be sequestered, so to speak, and given a name of its own. Every year would then consist of 52 full weeks, plus one or two "extra" or "stabilizing" days—the World Holidays. This arrangement would make every year begin on the same day, and give every day of each month the same date in successive years.

There have been two principal varieties of this proposal. One would give the year 13 months of 28 days each—a total again of 364. This plan has been traced back to an article in *Scot's Magazine* for July, 1745, by a "Mr. Urban of Maryland." Its origin is more popularly attributed to Auguste Comte, who published an article on it in 1849. The 13-month plan makes demands that are altogether too radical. It would lose all approximate correspondence with comparable dates in our present calendar, would introduce a new month, would be based on an indivisible unit of calculation (13), would offend the superstitious,

etc. Today the 13-month calendar is hardly mentioned, since it was definitely rejected by the League of Nations authorities entrusted with the study of calendar reform proposals. The same is true of intercalary week or month schemes.

The other plan of 12 months with its "extra" or "stabilizing" days was first proposed in its essential features by a Catholic priest, Marco Mastrofini, who published a work on it in Rome in 1834. The World Calendar is an improvement on this plan, having equalized the quarter-years. Now widely recognized as a calendar authority, The World Calendar Association is located at 630 Fifth Avenue, New York City; President, Miss Elisabeth Achelis. The World Calendar produces symmetry by giving each quarter of the year three months with respectively 31, 30 and 30 days. Every year begins on Sunday, as does also every quarter. The second month in each quarter begins on Wednesday, the third on Friday. The basic number 12, handily divisible by 2, 3, 4, and 6, is thus kept in a logical arrangement. In many cases, dates in the new calendar, when paralleled with the old, are the same: there is never a difference of more than two days. The added day in ordinary years, called Year-End Day, follows 30 December. The second additional day of leap years, called Leap-Year Day, follows 30 June. Both days would be World Holidays. Fourteen nations and many organizations have approved The World Calendar.

Easter could be fixed in The World Calendar for Sunday, 8 April. While Easter stabilization has economic and social aspects, it is predominantly a religious question and one that must be dealt with by religious authorities. The rearranging of the calendar need not, therefore, of necessity imply the fixing of movable ecclesiastical feasts.

Many religious authorities, including Catholic priests and scholars, find no basic difficulty in the idea of one or two stabilizing days. The Vatican has declared that there are no dogmatic objections to calendar reform. This statement seems to cover both fixation of movable feasts and use of the World Holidays.

FROM THE MAIL BAG

I have read it (The World Calendar) with interest, and I hope your scheme will receive full consideration from the Economic and Social Council when it meets.—The Rt. Hon. Sir Alexander Cadogan, United Kingdom Delegate to the United Nations.

In looking at the *Journal* for the third quarter of 1946, I am very much interested to note the tremendous progress made in advancing The World Calendar for consideration by the resolutions introduced in the Seventy-ninth Congress; also the splendid presentation by Congressman Mundt. . . . It sums up the advantages better than any previous statement and in a very concise way.—Charles K. Robinson, Attorney, Pittsburgh, Pa.

Heartiest congratulations on your success. I found the Third Quarter number of the *Journal of Calendar Reform* most inspiring.—Dr. David G. Stead, Watsons Bay, N.S.W., Australia.

I think there is much to commend the type of calendar that you and your colleagues are proposing. I certainly hope that some time in the not too distant future such a change will be forthcoming. I am quite sure that once adopted we would all find it a welcome and helpful change from the present variable calendar which we now use.—William Plummer, Jr., Pres., Hires Turner Glass Co., Philadelphia.

The problems of administering educational institutions will be greatly simplified by the adoption of The World Calendar.—W. J. McConnell, Pres., North Texas State Teachers College, Denton, Tex.

It's the most sensible thing that could be done in a long time.—Joseph Sylvanovich, Exeter, Pa.

Reading about your new World Calendar in our *Los Angeles Times*, I can see where your new streamlined calendar will accomplish much if the House passes the bill, and that everyone using the new calendar will enjoy the simplicity of it.—Mark Andrews, No. Hollywood, Cal.

I congratulate you on progress being made. I am completely in accord.—Prof. Carleton A. Wheeler, Peterborough, N. H.

As Professor of Astronomy, Canon Law and Liturgy, I am very interested in the reform of the present calendar.—Rev. Clarence J. d'Entremont, Gros Pin, Quebec.

I have been your member for many years. I am convinced and remain convinced that The World Calendar is a great forward step in the interest of the whole world and must be taken at an early date. The more I think of it, the more convinced I become, and I would much rather have United Nations than individual nations do it.—R. M. Deshmukh, High Commissioner for India in the Union of So. Africa, Amraoti (Berar) India.

I have been reading the *Journal of Calendar Reform* as it has arrived at the house and I certainly want to congratulate you on the last issue. You are doing a grand job and you must feel proud that acceptance of a World Calendar can't be too far away.—Dr. E. H. van Delden, Director of Industrial Relations, Libby-Owens-Ford Glass Co., Toledo, O.

Your plan of calendar reform should be endorsed by every legitimate organization and every rational individual believing in constant social progress because it is scientific in arrangement and structure, and far superior to our present hit-or-miss Gregorian calendar of confusion. I wish to be identified as a supporter of your World Calendar reform.—Headley E. Bailey, New York, N. Y.

The move for calendar reform interests me very much, and I certainly favor your proposal. I want to do what I can to help the movement along.—George S. Steele, Attorney at Law, Rockingham, N. C.

We cherish great hope that concerted efforts of the United Nations will speedily realize universal adoption of this worldwide calendar.—Chiang Fu-tung, Dir., National Central Library, Nanking, China.

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- AUSTRALIA:** Committee on Calendar Reform of the Australian and New Zealand Association for the Advancement of Science, C. W. Allen, Secy., Solar Observatory, Canberra.
- BELGIUM:** Belgian National Committee on Calendar Reform, Professor M. Dehalu, President, l'Université de Liège, Liège.
- BOLIVIA:** Comité Boliviano del Calendario Mundial, Don Moises Santivanez, Chairman, Biblioteca Nacional, Sucre.
- BRAZIL:** Comité Brasileiro do Calendario Mundial, Rear Admiral Radler de Aquino, Chairman, Rua Haul Pompela No. 133, Rio de Janeiro.
- CANADA:** The World Calendar Association (Canadian Affiliate), A. J. Hills, Chairman, National Joint Conference Board of the Construction Industry, Confederation Bldg., Ottawa.
- CHILE:** Comité Chileno del Calendario Mundial, Prof. Alberto Cumming, Chairman, Calle Manuel Rodriguez, Santiago.
- CHINA:** Chinese Association for the Study of Calendar Reform, Dr. Ch'ing-Sung Yü, Director, National Institute of Astronomy, Kunming, Yunnan.
- COLOMBIA:** Comité Colombiano del Calendario Mundial, Bogota.
- COSTA RICA:** Comité Costarricense del Calendario Mundial (Igualmente de Guatemala, Honduras, El Salvador y Nicaragua), H. E. Don Teodoro Picado, Chairman, San José.
- CUBA:** Comité Cubano del Calendario Mundial, Belén Observatory, Havana.
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- GERMANY:** Deutscher Ausschuss für Kalenderreform, Dr. Grosse, Geschäftsführer, Neue Wilhelmstr. 9/11, Berlin N. W. 7.—Der Weltbund für Kalenderreform, 24 Lornsenstrasse, Kiel.
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- POLAND:** Polish Committee for Calendar Reform, Albin Jakiel, Chairman, Krasiuskiego, 21 m 27, Warsaw.
- PUERTO RICO:** Committee of The World Calendar, Dr. Manuel M. Morillo, Chairman. (Deceased.)
- SOUTH AFRICA:** Committee on Calendar Reform of the National Anti-Waste and Conservation Organisation, Dr. J. H. Dobson, Hon. Chairman, Howard House, Loveday Street, Johannesburg.
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- YUGOSLAVIA:** Yugoslavian Committee on Calendar Reform, George Curcin, Chairman, Akademska 10/1, Zemun.



ONE WORLD CALENDAR FOR ONE WORLD

VOL. XVII

SECOND QUARTER, 1947

NO. 2

"IN earlier periods calendars were made or reformed by a comparatively simple process," said the International Labor Organization in a report favoring The World Calendar as long ago as 1927. "A monarch or high religious authority, generally after obtaining the opinion of technical advisers, would issue a Decree by which the reform would be introduced into the country or group of countries subject to his authority. In the present democratic age the procedure is more complicated."

The establishing of Standard Time and the International Date Line within the last century could not be accomplished by monarchs or high priests, and did not result from an aroused and militant mandate of the public at large. These achievements were primarily conceived by scientists and scholars, demanded by practical leaders of business and carried out by governmental officials.

Adoption of The World Calendar similarly must be studied and made operative by leaders of government, in accordance with scientific and scholarly endorsement, and in response to the considered opinion of outstanding private leaders in a wide variety of fields.

The independent judgment and initiative required of leaders demand a perception of those things that will benefit the world, even those not fully comprehended in advance by the public at large. Whether of a nation or individual, real leadership is creative and dynamic.

Great power invests a nation with such influence that it cannot escape the attributes of leadership; the only question is the manner of exercising it. As the most powerful legislative body in the world, the Congress of the United States has not only domestic but world-wide responsibility to act on The World Calendar legislation pending before it.

The United States delegation to the United Nations has an extraordinary responsibility in regard to calendar reform. Many nations are unequivocally on record in favor of adoption of The World Calendar. A majority of nations agree on adoption 1 January, 1950. The voice of the United States will carry far.

Each delegation to the United Nations is called upon for leadership, not only for the nation represented, but as citizens of the world for all mankind.

In these complex and difficult times, the supreme need is for statesmanship within nations, in the dealings of nations with other nations, and in international councils, notably the United Nations.

J O U R N A L O F

CALENDAR REFORM

April, May, June
1947

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EDITION HELD FOR FULL REPORT ON UNITED
NATIONS ECONOMIC AND SOCIAL COUNCIL.

(REPRINTS AND QUOTATIONS GRANTED)

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WESTY EGMONT, Editor

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THE UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL

AT the Fourth Session of the Economic and Social Council of the United Nations the Peruvian delegation submitted the following resolution on The World Calendar:

WHEREAS the revision of the Gregorian Calendar has been for long the subject of study and research on the part of experts, institutions, international organizations, and several nations have already in principle expressed their willingness to adopt a new calendar;

WHEREAS it is widely recognized that the present calendar is unsatisfactory for the economic, social, educational, scientific and other activities of man; that there exists a general desire to bring about its revision, and that the new calendar should have twelve months and equal quarters, be perpetually the same, with a stable pattern of quarter-years, months, weeks, days and fixed holidays;

WHEREAS The World Calendar Association of New York has devoted itself to the study of the calendar, preparing adequate plans for the adoption of The World Calendar on January 1, 1950, as the most appropriate date for the transition from the Gregorian Calendar to the new one;

WHEREAS the acceptance of The World Calendar per force requires a basic international understanding, prior to the passing of the respective national legislative resolutions; and

WHEREAS this basic international understanding can best be reached through a recommendation of the Economic and Social Council to the General Assembly of the United Nations, in accordance with article 62 of the Charter:

NOW, THEREFORE,
BE IT RESOLVED,

1. THAT the Economic and Social Council appoint an ad-hoc Committee of five members to study and pass judgment on the adoption of a new calendar on January 1, 1950, as drafted by The World Calendar Association, and which is attached herein; and
2. THAT should the aforesaid ad-hoc Committee consider the

adoption of this calendar both feasible and advantageous, it also compose a draft resolution and recommendation and that these be forwarded by the Council to the forthcoming session of the General Assembly.

For the purposes of the present resolution THE WORLD CALENDAR is described as follows:

(World Calendar reproduced)

As a result, the President of the Council, Sir A. Ramaswami Mudaliar, proposed the following resolution at the Fourth Session and it was unanimously adopted.

The Economic and Social Council:

Resolves to adjourn to its next session the consideration of the proposal presented by the representative of Peru for The World Calendar,

Instructs the Secretary-General to prepare whatever material is readily available for the consideration by the Council, at its next session, on the subject of the revision of the calendar and

Requests the Secretary-General to communicate to the Member Governments of the United Nations the proposed resolution of the representative of Peru.

The original proposal as submitted by Dr. Alberto Arca Parro, Second Vice President of the Council and head of the Peruvian delegation, was accordingly submitted to the Member Governments by the Secretary-General of the United Nations.

The Secretariat subsequently prepared a "Note by the Secretary-General of the United Nations," and distributed it to the Member Governments. This was available to the Fifth Session of the Council on the date it convened and was generally regarded as "comprehensive." This document reviewed the general history of the calendar reform movement and described and set forth at least the primary features of The World Calendar.

Each of these actions paved the way and facilitates further action on the proposal originally submitted by the Peruvian delegation for the adoption of The World Calendar. Advocates of this measure are justified in feeling that substantial progress is being made by the United Nations.

The Fifth Session of the Council in bringing its members together on Saturday, 19 July, 1947, afforded an opportunity for informal and unofficial exchanges of opinion on international problems. Questions were raised and answered. Information was sought and given. Many problems or apparent problems were settled. As a result, much was accomplished and

some nations which hitherto have not been completely ready are now prepared to proceed in favor of The World Calendar.

In consulting with The World Calendar Association, the Secretariat requested that the Association complete a projected Bibliography and make it available to the Council by 19 July, 1947. This was done and the Bibliography was included with other documents submitted. Copies were also distributed to each delegation.

The Secretariat set up an alcove in its library exclusively devoted to calendar revision and to The World Calendar. This included the records of the League of Nations.

Those in favor of immediate action on The World Calendar have a right to be keenly disappointed that the proposal for appointment of an ad-hoc Committee to study and report on The World Calendar, which was on the preliminary agenda of the Fifth Session, was literally dropped in the eleventh hour, together with several other items. This action indubitably delayed immediate United Nations' action on The World Calendar.

Some said that this justified the editorial published on 26 June, 1947, in *The Orilla Packet and Times*, of Canada: "The United Nations is too badly divided on nearly every question that comes before it to lend much encouragement to an attempt to introduce calendar reform there." Much is expected of the United Nations; its delays are often construed as failures.

Regret for the Fifth Session's deferment of adoption of The World Calendar must be coupled with satisfaction that not one word adverse to The World Calendar was uttered, that on the contrary the proposal was described as "extremely interesting," and that the delay was not without opposition. Advocates of The World Calendar may take comfort in the fact that it was not "division" on the merits of the proposal, but on the relative priority of subjects, which resulted in postponement.

Several fortuitous circumstances were partly instrumental. The head of the Peruvian delegation, Dr. Alberto Arca Parro, broke a bone in his foot and could not attend the first meetings, when the final agenda was adopted. The Assistant Secretary-General in charge of the Department of Social Affairs, Dr. Henri Laugier, was in the hospital undergoing an emergency operation on his leg at the time the Council convened.

Even before the scheduled date of the Fifth Session, the preliminary agenda was very heavy. Protests were expressed by practically every delegation. It was clear that by attempting too much the Council might accomplish too little. When the preliminary agenda was submitted for approval by the Council, there was agreement on reducing the number of items in order that effective action might be taken on the most urgent problems.

Important and urgent as The World Calendar Association regards its proposal, it had to recognize that the Council was really overburdened and that the future of the United Nations itself, the very lives of countless millions of children and others in vast areas of the world, depended upon rehabilitation and reconstruction measures.

In reporting that the Council had dropped The World Calendar resolution from the agenda, the *United Nations Weekly Bulletin* said that while all of the members who spoke on this question recognized the importance of the subject, "in principle, the consensus of opinion was that the Council had many more urgent things to do, that the Secretariat was overloaded with work and that scarce funds should not be diverted to this project." Quoting *The New York Times*: "The Council dropped from its agenda the subject of a world calendar . . . to make room for urgent problems, such as world relief needs and joint economic policy."

True, as it developed, there was more than one occasion when the Council apparently might have considered The World Calendar without doing so at the expense of other subjects on the agenda. The verbatim record suggests there was time available to discuss a subject on which the Secretariat had completed its preparatory work and even searched for such a subject more than once. The Secretariat had completed its assignment on The World Calendar and the Council was in a position to proceed. Here was a truly universal subject. Here was a proposal which would contribute to order, unity and harmony among peoples, and thus to peace. Here was an area of seemingly wide agreement. The United Nations for its own sake needs to pursue to conclusion a matter on which there is general agreement. It needs to be in a position to point to accomplishment that will be recognized by every man, woman and child in the world, and in keeping with the Council's announced objective of "working toward solutions of questions of every-day life which may largely determine the course of history."*

The World Calendar Association, concerned with aiding humanity and desirous of cooperating with the United Nations, thus refrained from further pressing the object of its own special interest at this session. It believes that both officially and unofficially such steps as have been taken and are being taken, without diverting attention from more urgent problems of the moment, have contributed toward the adoption of The World Calendar on 1 January, 1950.

**United Nations News Features*, 31 July 1947, Vol. 2, No. 31.

UNITED NATIONS REVIEWS LEAGUE OF NATIONS

The Secretary-General of the United Nations, on 14 July, published a review of the League of Nations' work on calendar reform in a short statement prepared as a result of the introduction of The World Calendar on the agenda of the Fourth Session of the Economic and Social Council.

THE question of reform of the calendar was considered by the League of Nations in the first years of its establishment. Its work in this field included two items: the general reform of the Gregorian calendar and the stabilization of the festival of Easter in particular. The first item, the only one which has a direct bearing on the draft Resolution submitted by the Delegation of Peru, will be examined here.

This question was introduced into the programme of the League of Nations twice in different forms. The first time, this was done in connection with the work of the Communications and Transit Organization. The object was to study the general reform of the Gregorian calendar. The enquiries lasted for several years but did not result in positive action on any reform. The second time, the Council of the League of Nations received a draft international convention submitted by the Delegation of Chile for the adoption of a specific calendar, identical with "The World Calendar" now under consideration.

A. REFORM OF THE CALENDAR AS DEALT WITH BY THE COMMUNICATIONS AND TRANSIT ORGANIZATION

(a) *The Advisory and Technical Committee for Communications and Transit*

At its Fifth Session held at Geneva from 29 August to 1 September 1923, the Advisory and Technical Committee for Communications and Transit, considering that the investigation of the reform of the Gregorian calendar by the introduction of a more rational and more uniform method of measuring time might greatly influence conditions of economic life and international traffic, decided to set up a Special Committee of six members to go carefully into the question. The title of this Committee was: The Committee of Enquiry into the Reform of the Calendar.

Immediately before the establishment of this Special Committee, the Committee made the following statement on three points:

1. From the point of view of dogma, the idea of the reform of the calendar does not meet with difficulties that can be considered insuperable.
2. No reform of the calendar, and, in particular, no decision regarding the fixing of Easter, can be accomplished without an agreement among the various religious authorities.
3. In the existing circumstances, a reform of the calendar cannot be considered to be justified and possible unless public opinion definitely demands it for the improvement of public life and economic relations.

The Advisory and Technical Committee defined the task of the Special Committee as follows: to consider questions relating to the reform of the calendar, taking as a starting point the draft drawn up by the International Astronomical Union at its meeting of 12 May 1922 at Rome and the recommendations made by the International Chamber of Commerce at its Congress in June 1921 in London.

The results of the work of the International Astronomical Union's Committee on the Calendar may be conveniently summarized as follows:

1. The adoption of a perpetual calendar, retaining the fifty-two weeks, plus one or two "blank" days.
2. The transfer of 1 January to the place occupied by 22 December in the present calendar, in order that the calendar year may coincide with the astronomical year.
3. The division of the 364 days into four periods of ninety-one days each, that is to say, two months of thirty days and one month of thirty-one days, without excluding supplementary divisions into fourteen or twenty-eight days.

The recommendations adopted by the London Congress of the International Chamber of Commerce consisted of approving the principle of convening a Special Congress, at which the ecclesiastical, scientific and commercial world would be represented, with a view to adopting a fixed and perpetual calendar.

The Advisory and Technical Committee also instructed the Special Committee to communicate the resolution to all the governments and to the religious authorities, asking them to submit their observations and suggestions to the Special Committee before 1 March 1924.

(b) Special Committee of Enquiry into the Reform of the Calendar

The six members of the Special Committee, half of whom were appointed by the Advisory and Technical Committee and the other half by religious authorities, namely, one by the Holy See, one by the Oecumenical

Patriarchate of Constantinople, and one by the Archbishop of Canterbury, were:

Professor van Eysinga	Chairman; Professor of Leyden University, member of the Advisory and Technical Committee for Communications and Transit.
G. Bigourdan	Former Chairman of the International Astronomical Union's Committee on the Calendar.
Willis H. Booth	President of the International Chamber of Commerce.
The Reverend Father Gianfranceschi	President of the Academy "Dei Nuovi Lincei" (Holy See).
Professor D. Eginitis	Director of the Observatory of Athens (Oecumenical Patriarchate of Constantinople).
The Reverend T. E. R. Phillips	Secretary of the Royal Astronomical Society of London (Archbishop of Canterbury).

This Committee held three Sessions; one in May 1924, another in February 1925 and a third in June 1926. In the period following the First Session, questionnaires similar to those sent to governments and religious authorities were also sent to a large number of international organizations for the same purpose. At its Second Session, many representatives of religious organizations, of the Jewish religion in particular, were heard by the Committee.

The documentation collected by the Committee consists, on the one hand, of replies received from governments, religious authorities and international organizations and information collected by the International Chamber of Commerce, and, on the other hand, of various schemes from all parts of the world for new types of calendars.

Before formulating its conclusions, the Committee remarked on the obvious defects of the present calendar. These views have already been stated in the preceding chapter.*

The favourable and unfavourable replies received from twenty-seven governments—Albania, Austria, Belgium, Bulgaria, Canada, China, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, India, Italy, Latvia, Netherlands, New Zealand, Norway, Poland, Portugal, Rumania, Siam, South Africa, Spain and Sweden—showed that the majority of the governments had only consulted certain scientific bodies. The Committee received the impression that the governments had not obtained sufficient information to submit the question to all the professional groups in their populations.

* The Chapter on the League of Nations was but one of the Chapters. Others may be republished in later issues of this Journal.

The replies received from the eleven religious authorities, namely, the Holy See, the Oecumenical Patriarchate, the Pan-Orthodox Congress, the Federal Council of the Churches of Christ in America, the German Evangelical Church Committee, the Federation of Swiss Protestant Churches, the Christian Science Board of Directors, the Central Consistory of French Israelites, the Universal Israelite Alliance, the Confucian Association and the International Positivist Society and the oral statements of Jewish representatives to the Committee, expressed the opinions of religions of the majority of the nations. Generally speaking, there was no opposition to the principle of calendar reform. The Christians made reservations, pointing out that the reform could not be adopted unless the authorities of various branches of the Christian religion adopted it by common consent. Some of the Jews objected only to the supplementary days which they contended would interfere with the celebration of the Sabbath.

The international organizations which replied to the Special Committee's enquiry with regard to reform generally were:

- The International Labour Office
- The International Bureau of Commercial Statistics
- The International Railway Union
- The Committee for Maritime Meteorology
- The Permanent Bureau of International Sports Federations
- The National Sports Committee
- The Federation of Winter Sports
- The "Aero Club de France"

They were all in favour of reform ultimately; the majority of them were in favour of a calendar of twelve months with supplementary days; one organization mentioned the 364-day year with a supplementary week every five or six years.

The Special Committee also analyzed over five hundred proposals, some in favour of the perpetual calendar, and others advocating the alteration of details of the existing calendar or plans for fixing Easter. This study was published in a special pamphlet, entitled "Classification and Summary of Proposals for the Reform of the Calendar received before 1 July 1926 by the Special Committee of Enquiry into the Reform of the Calendar."

The measures contemplated for setting up a perpetual calendar were of two kinds:

1. Twelve months of a total of 364 days divided into four equal quarters, and
2. Thirteen months of twenty-eight days.

Two groups of solutions exist for bringing the calendar year into line with the astronomical year:

1. A supplementary day every year and a second supplementary day for leap year;
2. A supplementary week for leap years.

The Special Committee's conclusions were cautious. The principal ones were:

1. The Committee, limiting itself to a comparison of the advantages and disadvantages of the two main calendars, declared itself unable to make any recommendations regarding the choice;
2. No international conference could possibly succeed in concluding an international convention for the reform until public opinion had been sufficiently prepared;
3. The work to be accomplished consisted, on the one hand, in pursuing enquiries in all social circles through official or semi-official channels and, on the other hand, in preparing public opinion, through organizations connected with the League of Nations, in order that favourable conditions might be established for an international agreement regarding this reform.

This report was published in 1926 and sent to all governments by 1927.

(c) *Preparatory Commission of the Fourth General Conference on Communications and Transit*

In accordance with the conclusions of the Special Committee's report, experts were sent to various countries to prepare for the establishment of national committees on the reform of the calendar. A Preparatory Commission composed of experts from fourteen nations met in Geneva for a five-day conference in June 1931. The purpose of this conference was to analyse, classify and supplement the documentation contained in the reports of national committees, in order to facilitate the work of the forthcoming diplomatic conference on the reform of the Gregorian calendar. The Preparatory Commission made no recommendations on the necessity of the reform, but it classified and analysed the documents available to it and suggested the procedure to be followed.

(d) *Fourth General Conference on Communications and Transit*

The Fourth General Conference took place in October 1931. A large part of the discussions was devoted to the reform of the calendar and to the stabilization of the festival of Easter. Those in favour of new systems for the calendar and the representatives of various Churches were heard. When it came to deciding which calendar should be chosen, the majority of the delegates stated that their national administration was not in a position to formulate an opinion. In these circumstances, the conference limited itself to recommending to the Committee for Communications and Transit that it continue its efforts to enlighten public opinion.

B. THE REFORM OF THE CALENDAR AS DEALT WITH BY THE COUNCIL OF THE LEAGUE OF NATIONS

In January 1937, when the Council of the League of Nations had to consider the communication of the International Labour Conference on the reform of the calendar, the Delegate for Chile submitted a draft international convention for the adoption of a perpetual calendar. This was "The World Calendar." The Council decided in the first place to refer the question to the Advisory and Technical Committee for Communications and Transit. This Committee set to work at once and a text was sent to all the governments with a letter requesting them to submit their observations before 1 August 1937.

Amongst the forty-five replies received, of which thirteen arrived after the Committee had met, fourteen were in favour, six objected, seven considered the draft to be premature, nine had no observations to make and nine others were not in a position to reply. In view of this result, the Committee adopted the following resolution:

"... The Committee has come to the conclusion that it is not expedient, for the time being, to contemplate convening a Conference to carry out a reform which in present circumstances would have no chance of being accepted."

In September of that year, the Council held its ninety-eighth Session. The Rapporteur on the draft convention, on the basis of the aforementioned resolution, proposed that this question be deleted from the Council's agenda, although he specified that this would not prevent the Council from re-examining the problem at a more favourable time. This point of view was adopted by the Council.

Altogether, the fourteen years of the League of Nations' work on the reform of the calendar achieved considerable results. Although originally there were several hundred proposals, two main types were eventually isolated. Finally, one single calendar, The World Calendar, was submitted to the Council by a delegation and approved by fourteen nations.



LEAGUE OF NATIONS SECRETARIAT OFFICIAL REVIEWS HISTORY

By *Essy Key-Rasmussen*

On the same day the United Nations' review was published, this Journal received another review of the League of Nations' study of calendar reform, written by the official of the League who was in charge at Geneva. This afforded the opportunity to present simultaneously the story as seen both by an entirely objective historian and a personal participant.

THOUGH the League of Nations did not reform the Gregorian calendar, it thoroughly investigated all theoretical and practical aspects of the problem of improving it. It analyzed, classified and sifted over 500 reform schemes, caused the governments to set up national committees representing the various groups calendar reform would more especially affect, and thus prepared the ground for further and final action.

The official documents constitute a comprehensive record. Some years ago I wrote a detailed interpretation which was published in issues of the *Journal of Calendar Reform*. Now, with the passage of additional time and the momentous events of recent history, including the reference to the League's Calendar Enquiry at the United Nations Economic and Social Council upon introduction of The World Calendar resolution, a short interpretation may be interesting and useful. I have the advantage and disadvantage of writing from the viewpoint of personal participation and long experience, having been associated with the League's Enquiry from the beginning in 1923 to its conclusion in 1937. Impressed by the inconvenience to international communications and transit caused by the imperfections of the Gregorian calendar, the League's Communications and Transit Section decided to take up the study of Calendar Reform. At the conclusion of this Enquiry in 1937, 69 governments of States Members and non-Members of the League of Nations were asked to take a stand in respect to a formal proposal made by the Chilean representative on the League Council for the adoption of the plan known as The World Calendar, which is now before the Congress of the United States, in the form of House Resolution 1345 and Senate Resolution 1755.

The League was faced with the need of setting up a special committee,

and ultimately an international organization to deal with calendar revision, and it also found it necessary to devise a technique for classifying, investigating and evaluating specific proposals. This part of the League procedure may be of interest at this time, especially to the United Nations.

The first step at Geneva was the collection of information on calendar proposals and other literature on the subject, published up to 1923, and on the history of international action taken prior to that date. I was assigned to that task and went through an impressive amount of calendar literature, and summarized and classified the reform proposals published. Two important international bodies had already declared themselves in favor of the adoption of a perpetual calendar, namely: the International Chamber of Commerce and the Calendar Reform Committee of the International Astronomical Union. Prior to the First World War the Swiss Government had even undertaken some preparatory work with a view to the convocation of an international conference on Calendar Reform. The results of this work were handed over to the League of Nations Secretariat and utilized in preparation for the League's study. On the strength of the data collected, the League's Communications and Transit Section decided to place the question on its agenda.

Before proceeding further, the Committee of the League decided to arrange for a preliminary consultation of "high religious authorities." The Committee invited the Vatican, the Oecumenical Patriarch and the Archbishop of Canterbury to send representatives to its next meeting. The outcome of this consultation was that the three ecclesiastics agreed to a resolution stating that the reform of the Gregorian calendar did not meet with dogmatic difficulties of an "insuperable nature," but they did cause the Committee to include two reservations in its resolution. The first was to the effect that the fixing of Easter—which is a special question, altogether independent of general calendar reform itself—should be subjected to an agreement among the Christian churches. The second reservation was broader and more far-reaching, and later became a serious obstacle to the achievement of practical results. It stated that the changes involved by any reform were only justified if "definitely demanded by public opinion." The impact of the thinking of these religious authorities on the exploration of calendar reform by the League was further strengthened by the inclusion of the three ecclesiastics mentioned as members of the Special Committee of Enquiry on Calendar Reform which was set up subsequently.

It would not be unjustified to ask why the Communications and Transit Committee granted religious interests so much influence over a primarily secular question, such as the reform of the *civil* calendar. In my opinion,

this was due partly to the personal religious background and orientation of certain influential members of the Committee and of the Secretariat, and partly to tactical considerations, based on a possibly exaggerated conception of the influence of churches on public opinion. The fact that Pope Gregory had introduced the preceding reform may also have played a role, in spite of the radical changes which had taken place in the world since that epoch.

The Special Committee of Enquiry was to take as a starting point for its deliberations the resolutions adopted by the Calendar Reform Committee of the International Astronomical Union and by the Congress of the International Chamber of Commerce. Both were in favor of a perpetual calendar. The Chamber limited its recommendation to the adoption of such a plan. The Astronomical Union proposed a perpetual calendar of 52 weeks with one or two supplementary days, equal quarters of 91 days each, composed of two months of 30 days and one of 31 days, and also recommended that the year begin at the winter solstice, that is to say, on 22 December, which would become 1 January.

The Special Committee held sessions in 1924, 1925 and 1926, attracting considerable attention on the part of press and public, and issued comprehensive reports. The Committee conducted four separate enquiries, circularizing governments, religious authorities, railway companies, educational authorities, business circles and a large number of important international organizations in different fields in order to obtain their "remarks and suggestions" relating to different aspects of calendar reform. It also granted hearings to representatives of Protestant Churches, Jewish groups and a secular pressure group advocating a fixed 13-month calendar.

Numerous calendar schemes poured into the files of the Secretariat at Geneva. They were analyzed and classified according to basic types to facilitate the work of the Special Committee.

Using these criteria and this method, it ruled out all schemes altering the length of the week and discarded plans recommending years of unequal lengths. (A certain number of calendar reformers suggested that instead of adding one supplementary day in ordinary years, and two in leap years, these days be accumulated until an entire "leap week" could be introduced.)

Contrary to the opinion of the calendar committee of the International Astronomical Union, the Special Committee was in favor of maintaining the beginning of the year at its present date, since it saw no practical advantage in changing it.

As the documentary material resulting from the enquiries conducted

was not conclusive, the Committee limited itself to listing the advantages and disadvantages of three groups of reform, namely: the so-called simple reform, consisting of a mere equalization of the quarters without rendering the calendar perpetual; and the 12 and the 13-month perpetual calendars with supplementary days. Although the replies received from governments in favor of a perpetual calendar stated that they preferred the 12-month plan, the Special Committee declared that "public opinion was not yet prepared to press for immediate action," and recommended that the governments set up national committees composed of representatives of the different interests concerned to investigate the question further.

Fresh impetus was given to the League's calendar reform efforts through initiatives taken on the other side of the Atlantic. The founder of the International Fixed Calendar League, Moses B. Cotsworth, had enlisted the sponsorship of the late George Eastman of Rochester, New York. Like some other men of big business, Eastman was attracted by the 13-month plan with its 28-day months of 4 weeks each because of the importance of the weekly unit for statistical and accounting purposes. In some large business organizations an auxiliary 13-month calendar was frequently used, and considerable savings could be effected if the same calendar were officially adopted for all civil purposes.

The League Secretariat sent experts to the various countries to promote the creation of national committees and stimulate their activities. A Preparatory Committee composed of members from 14 nations was also set up to analyze and consolidate the results of the work of the national committees and report to the forthcoming diplomatic Conference.

In the meantime, the International Fixed Calendar League had launched a public drive for acceptance of the 13-month plan, and another plan, The World Calendar, was being prepared, also in the United States.

The Preparatory Committee met in June, 1931, and heard representatives of various groups, religious as well as secular, among which were the International Fixed Calendar League and the newly organized World Calendar Association, founded by Miss Elisabeth Achelis. It classified and analyzed the replies received from the national committees and made suggestions for the procedure to be followed by the Conference.

The Fourth General Conference on Communications and Transit was attended by representatives of 42 nations, including the United States. Hearings were again granted to representatives of various groups, including religious. The President of The World Calendar Association appeared for that organization. As for the Fixed Calendar League, its spokesmen were members of their several delegations. However, the nations represented were not in a position to take a definite stand—only four voted for

a reform—Canada and Yugoslavia for the 13-month plan and Greece and Switzerland for the 12-month calendar. The Conference instructed the Communications and Transit Committee to follow further developments.

The final action taken by the League occurred in 1937. The six years which had elapsed since the stalemate of the Fourth General Conference had been marked by the tapering off of the activities of the International Fixed Calendar League, which lost its chief supporter and advocate through the death of George Eastman in 1932. On the other hand, The World Calendar Association made steady progress, gaining fresh support. Acceptance crystallized into advocacy among the Latin-American nations. As a result, the approval of this plan was recommended by the International Labor Conference held at Santiago, Chile, in 1936. At the subsequent session of the League Council in January, 1937, the Chilean representative presented a draft international Convention proposing adoption of "the plan known as The World Calendar." This draft was referred to the Communications and Transit Committee for it to make an enquiry among Member and non-Member governments and report the findings back to the Council.

The result of this enquiry was that by the time of the meeting of the Transit Committee 32 governments had forwarded their observations. Subsequent answers increased the number to 45 States, of which 14 approved The World Calendar, 9 had no observations to offer, 6 appeared opposed, 7 considered the proposal premature and 9 were not ready to reply. An analysis of the statements by the governments revealed that not a single vote was cast in favor of the 13-month plan; 6 of the 14 countries in favor of The World Calendar were Latin-American. As it was considered undesirable to take action, unless a large majority was in favor of the reform, the Transit Committee did not recommend the convocation of a diplomatic Conference on Calendar Reform and the League Council subsequently endorsed its decision.

Long and painstaking efforts had thus come to a close. Was the result meager? Not in my opinion. On the contrary, I consider it extraordinary that at the time that the peace was disintegrating and the League itself rapidly falling apart, such wide agreement was reached. The groundwork laid was so thorough and firm that it need not again be done. All that is now needed is to bring to fruition the seeds of those long years of faithful and diligent labor.



PRESENT CALENDAR —A THIEF

By Elisabeth Achelis, President, The World Calendar Association, Inc.

*From The Family Album, June 1947, Jamaica, N. Y.,
reprinted by permission, slightly abridged.*

WOULD we consciously or willingly condone and use slipshod systems or methods which rob us of our precious time, energy, labor and money? Certainly not. Yet this really happens to every one of us, in whatever business or in whatever capacity we are engaged, every day and every year, while our present calendar is in use.

Every year shifts and is different from the foregoing and following years, so that comparability is impossible. Days and dates never agree with an incoming or outgoing year; thus they play tag with neither one catching up with the other. Equal divisions of quarters and half-years are an illusion. Quarter-years have 90, 91, or 92 days, and half-years have 181, 182, or 184 days. The lengths of months, too, are so capricious in their irregularities that only a nursery rhyme can guide us to the proper length of days in the months. All this leads to baffling confusion and expensive readjustments, which pilfer our valuable time and effort that could be more advantageously used. No two or three consecutive years are ever the same. This makes for 14 different types of years.

The reason lies in the fact that every year has 52 weeks of seven days plus one day, and leap year has two days more. This prevents us from making reliable plans in advance for any considerable period of time. Adding injury to injustice the calendar also contains 28 different kinds of months with which to deal, because these months having 28, 29, 30 or 31 days and coming on any one of the seven weekdays bring about constant confusion. These two basic defects are responsible for our hodgepodge calendar and meandering holidays. The calendar is utterly planless, replete with caprice and quirks, lacking order and dependability. It fails us in every way.

Thus in one year the month of January may have five Saturdays and Sundays so that there are fewer business days in which to operate; whereas in other years if January has five Mondays or Tuesdays, Wednesdays, Thursdays or Fridays, there are more business days and better financial returns appear to be the result. All this because of the erratic, crazy patchwork of our calendar which is wholly unpredictable.

Do we consider for instance how unequal are monthly payments and salaries when seven months have 31 days, four have 30 days and one month has 28 or 29 days? Are we not accepting this unequal condition too complacently? When we consider that banks generally figure interest and notes on a 30-day monthly basis, the injustice prevailing in our present calendar is glaring.

We are told that millions of dollars worth of precious time and honest effort are devoted each year to compiling new schedules for schools and colleges, only to be discarded at the end of the year, never to be used again. This tiresome and thankless task must be wearily repeated for each school year. Our calendar is decidedly wasteful and costly.

Chaotic conditions also exist in relation to days and dates. The 15th of March is important because it is the deadline for the first income tax payment. It is beneficial when this payment date comes on a Friday or Saturday, as these days offer a full week in which to prepare. Should it come in the midweek, more crowding and intensive work is called for, and should the 15th come on a Sunday or Monday the week-end in all probability will be spoiled. Our capricious calendar exacts a heavy toll.

How can any government official, budget director, industrialist, manufacturer, merchant, banker, executive, business manager, educator or housewife work efficiently and well with such a disordered and unreliable calendar? In many instances the tremendous cost and effort, the waste and money that our present calendar exacts from every one of us is not sufficiently realized. Our calendar is a subtle and "smooth thief."

Another matter of real concern, particularly to management and business, is the quarterly report which must be compiled and presented to board meetings, stockholders and owners. Imagine what figuring this requires in order to get the reports of the various departments agreeing with each other, when each may operate on a different basis! One department finds it best to use daily pay rolls, another a week or a two-week salary system, while still another prefers the semi-monthly or monthly period. To add to this melee, seasons and quarterly divisional years may be more convenient in the all-around bookkeeping of business itself.

How are these different time-units to be adjusted when they do not coordinate? By consulting rows of countless tabulated figures and even then an accurate picture with previous quarterly reports is not possible because comparisons are lacking. Our calendar is not coordinated.

Astounding is it not that civilization should still tolerate and endure this calendar which is two thousand years old? We are actually using a calendar-arrangement laid down by Julius Caesar, modified by Constan-

tine the Great and further amended by Pope Gregory XIII, when he re-adjusted the calendar to the seasons. The calendar as we know it today is hoary with age, and, as a result, it is decrepit, and unsteady.

Happily, change is apparent everywhere, and among the many changes which nature and conditions are demanding of us today, undeniably belongs a new and better calendar—The World Calendar. The old one, as we have noted, no longer fits our age. Civilization must resolutely accept changes and we, the people, must be courageous and willing to change the things that should be changed. To progress, we cannot stand still. World War II has convulsively broken with the apathetic, indifferent and set attitudes of the past. "Leave well enough alone" no longer suffices. Governments, businesses, industries, economics and social conditions, science and education are being jolted from their former complacency. *Move forward* is the watchword of today.

To change to The World Calendar will bring to everyday life and to every one of us the much desired order, equality and stability which will save time, energy, labor and money, heretofore so wantonly wasted.

The World Calendar is the composite of many minds during years of study and research. It was a Roman Catholic priest, the Abbot Marco Mastrofino, who in 1834 first devised the perpetual calendar, planned on a 364-day year with the 365th day inserted as an extra day, outside the week, at the close of every year. By this method every new year unfailingly begins with Sunday, 1 January, and the calendar becomes a reliable and steady instrument of time. The Abbot is the father of modern calendar reform. His predecessors were all famed for their outstanding contributions in reforming the calendar. Each revision was a definite stride forward in the advancement of man and in bettering his economic, social and cultural conditions.

The proposed World Calendar of 12 months and equal quarters which contains the stabilizing feature of the extra days is a simple and easy remedy by which the defects of the shifting Gregorian calendar are removed. It offers a reliable plan of exactly 52 weeks in the year, of exactly 91 days, or 13 weeks, or 3 months to each quarter-year, and of exactly 26 weekdays to each month. Each quarter consisting of three months is alike in every particular and is comparable with every other quarter. The first month has invariably 31 days, and the other two months a regular 30 days each. The four 31-day months have five Sundays; yet these have 26 weekdays as have the other eight months. Days and dates always agree. Comparability is a definite feature of The World Calendar.

With this well-planned calendar in operation, one calendar only is the yardstick. Christmas is Monday, 25 December; Independence Day, Wednes-

day, 4 July; Labor Day, Monday, 4 September; and Thanksgiving Day the fourth Thursday in November, the 23d.

Quarter and half-years are exact equal divisions of the year with the quarters always having 91 days and half-years exactly 182 days. The World Calendar is perpetual and reliable.

Then comes the extra day designated as a World Holiday, that unfailingly follows Saturday, 30 December, and becomes the Year-End Day which closes every year. In leap years an additional extra day follows 30 June; it is the Leap-Year Day, another World Holiday, that closes the first half of the year. The Year-End World Holiday, or the Universal Peace Day as one of our Congressmen describes it, would be in his words, "the first time in human history a day would be set aside wherein all the people of this universe would simultaneously and sincerely be dedicating their thoughts, their efforts and their prayers to the outlawry of war and the preservation of peace."

With every quarter-year having its regular three months, the previous multiplicity of 28 different months disappears. In the recurring rotation of 31, 30, 30 days a welcome variation enters the calendar, freeing it from the onus of monotony.

The World Calendar of equal quarters is a well-coordinated time-plan. Every time-unit is of equal value and importance and agrees simply and naturally on the closing day of every quarter-year. The former confusion and conflict have been changed to order and concord. Inequalities have given way to equality. Every quarter divisional year has its full quota of days, weeks and months, approximating one season. The World Calendar has been well described as a happy family of time.

The benefits that this calendar will bring are incalculable for we can *know* where we are heading. This new system of time may well be reflected in other conditions as well, for like begets like.

The value of agreeing days and dates is immediately apparent. Plans for national and international conferences, business board meetings, transportation and communication plans, tax days and dates, insurance premiums, school and college schedules, vacation periods, sports events and home affairs can be conveniently and easily made.

Birthdays, anniversaries and other commemorative events, whether national or international, will always be recorded on the day of occurrence as well as on the date, month and year. A Sunday child will continue to be a Sunday child, likewise a Monday child will celebrate on its very own day a Monday, and so throughout the week. The "lost" dates, the 31st of March, May and August, are observed on the day before similarly as leap-year children observe their birthdays. For the first time it is possible for

the calendar to record the *day* with the date, month and year whereby a true and complete record can be had.

For example, when Pearl Harbor was attacked, our present calendar could only record the date, 7 December, 1941, the day being the forgotten time-unit. Only through reference tables, books or resorting to old calendars can we recapture the day on which it occurred, namely, a Sunday. With the World Calendar in operation the hitherto forgotten and untabulated day will come into its own and will share with the date, month and year. The day will be given a square deal.

To our far-visioned members in both Houses of Congress belongs the tribute of comprehending and introducing last summer a bipartisan measure for the adoption of The World Calendar. House Bill 1345 was reintroduced before the new Congress this January and it is fully expected that hearings will be held on this subject.

This has spurred action in the United Nations. The Economic and Social Council of the United Nations at its recent session placed The World Calendar on the temporary agenda of its forthcoming meeting, scheduled for July, with the instruction that the Secretariat prepare available material on the subject and inform Member Governments of this proposal.

With 14 nations, innumerable organizations and leaders throughout the world supporting The World Calendar, with bills before Congress, and the United Nations' activity, there is a good prospect for the adoption of The World Calendar on Sunday, 1 January, 1950. This date is of the utmost importance because both the present and the new calendars come together on that date, simplifying the change.

To maintain that other vital needs are more important and that The World Calendar can wait is not feasible. How can we obtain improvements and accomplish the best results with a calendar that is a constant hindrance and a pilferer? We did not hesitate to give up sailing vessels and buggies for super-steamers, streamlined trains, new automobiles and speedy airplanes. During the war, business and governments did not hesitate to scrap the old for better war material so as to win the war. Isn't the winning of peace equally important by scrapping old and obsolete systems and establishing new ones, among which surely belongs the best calendar available, The World Calendar?

Let us not be guilty of an act of omission. Let history proudly record that among the earliest acts of the United Nations was the approval and adoption of The World Calendar which effectively and practically demonstrated to the world: agreement on one system of time.

It is the privilege of all of us to aid in this much desired goal.

EVERYTHING NEW ONCE WAS OPPOSED BY SOME PEOPLE

The United Nations World published an article and some cartoons on the inertia and lack of imagination of reactionaries. Permission to reprint here has been kindly granted. We have added a reference to the International Date Line.

EVER since the first hairy savage discovered how to make fire, then burned his fingers and exclaimed in effect: "To hell with it!", civilization has progressed against generations of congenital antagonists to anything new. It didn't matter what it was—some people were just as ardently "agin it" whether it was the steamboat, the safety razor, or even an ambitious project for a World Organization, such as UN, to keep the peace.

The cheerful thing about all this is that, no matter what the opposition. new developments—provided they are good—are always accepted by everyone in the end. That, of course, is where the UN comes in and must make good—if it does a good job, the gripers will shut up.

The fantastic length to which unimaginative people will go in opposing progress is illustrated by the drawings, taken from old publications, on these pages.

The typewriter, though conceded to be ingenious, was completely ignored when it first made its appearance. Why would anybody want to write by machine when it could be done so much better and faster by hand? There was also the question of etiquette; only the crudest kind of business letter could be written by such a gadget.

Back in the 1880's the idea of telephoning opera into the home—fore-runner of today's opera by radio—was ridiculed. Suspenders for pants? "Never!" cried the males back in 1895 when they first appeared in Paris. The contraptions were likened to using a crane.

There was even opposition to electric trolleys on the grounds they would scare horses. One inventor suggested that trolleys be camouflaged with a dummy horse's head.

As for locomotive railroads, just glance at the advertisement, sponsored by stage coach and barge canal interests, that appeared 108 years ago in a Philadelphia paper.

Finally, telephone wires! —some of the shortsighted people of the Gay Nineties figured they would eventually completely tie up traffic.

Some People are always



Typewriters? Scandalous!



***International Date Line?
Preposterous!***



***Opera by Telephone?
Ha-Ha!***

Reform the calendar? Adopt The World Calendar? No can do, say some, even though a Ripley is not needed to show it can and should be done. Believe it or not.

...a Few e

against...



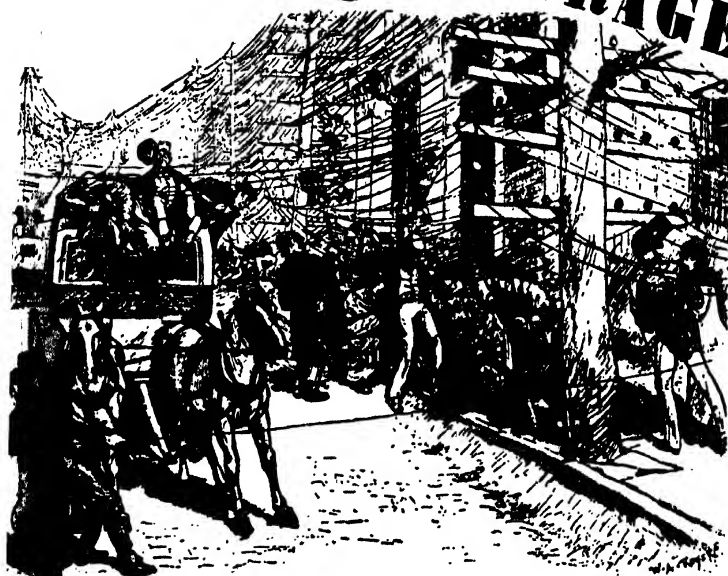
Trolley? Dangerous!

MOTHERS LOOK OUT FOR YOUR CHILDREN
ARTISANS, MECHANICS, CITIZENS
DREADFUL CASUALTY
 When you leave your family in health, most you be hurried home to receive a
LOCOMOTIVE RAIL ROAD
SUBURB OF NEW YORK!
OUTRAGE!

REMARKS:—THESE ARE THE RESULTS OF THE TRAM CAR, which is the most dangerous of all the vehicles of the city, and is the cause of the most deaths and injuries. It is a violation of LAW, and is a disgrace to the city. Will you permit this? or do you intend to do something to stop it? This is the only way to stop it. It is a disgrace to the city, and is a violation of LAW, and is a disgrace to the city. Will you permit this? or do you intend to do something to stop it? This is the only way to stop it.

These are now being held on BROAD STREET to prevent the TRAM CAR, which is the most dangerous of all the vehicles of the city, and is the cause of the most deaths and injuries. It is a violation of LAW, and is a disgrace to the city. Will you permit this? or do you intend to do something to stop it? This is the only way to stop it.

THESE ARE NOW BEING HELD ON BROAD STREET TO PREVENT THE TRAM CAR, WHICH IS THE MOST DANGEROUS OF ALL THE VEHICLES OF THE CITY, AND IS THE CAUSE OF THE MOST DEATHS AND INJURIES. IT IS A VIOLATION OF LAW, AND IS A DISGRACE TO THE CITY. WILL YOU PERMIT THIS? OR DO YOU INTEND TO DO SOMETHING TO STOP IT? THIS IS THE ONLY WAY TO STOP IT.



Railroad? Outrageous!

Telephone lines? Impossible!

Don oppose Calendar Revision!

ENDORSEMENTS

RESOLUTIONS of endorsement and approval which have been formally adopted by established organizations are both an expression and index of public opinion. Proponents of The World Calendar are justified in being pleased with the support from many additional groups, which have recently expressed themselves in favor of The World Calendar.

Among the organizations are the following:

CONTROLLERS CONGRESS of the National Retail Dry Goods Association reported adoption of a resolution at its Los Angeles Convention 11-14 June, 1947, as follows: "Resolved, that the Controllers Congress endorses the adoption of The World Calendar, provided it be adopted on a national basis."

ROYAL ASTRONOMICAL SOCIETY OF CANADA, at Council Meeting, 16 June, 1947, recorded adoption of the following resolution: "That this Society, with its particular interest in matters appertaining to time and dates, and realizing the necessity for a more simplified system, is in full and complete accord with the present effort to adopt The World Calendar."

ROYAL SOCIETY OF QUEENSLAND, Australia.

ROYAL SOCIETY OF NEW SOUTH WALES.

AUSTRALIAN NATIONAL RESEARCH COUNCIL.

AMATEUR ASTRONOMERS ASSOCIATION OF PITTSBURGH, Pennsylvania, 9 May, 1947.

KIWANIS CLUB, ELY, Minnesota, 2 May, 1947.

LIONS CLUB, BOVEY, Minnesota, 22 May, 1947.

LIONS CLUB, WEST VIRGINIA, (Districts 29-V—29-W), 17 June, 1947.

FIRST UNITARIAN CHURCH, LOUISVILLE, Kentucky, 12 May, 1947.

CARBON COPIES

Education of public officials on the desirability of adopting The World Calendar may be partly accomplished by your letters. Evidence of public interest is a stimulant. Will you send to this Association a copy of any letters you write to officials of the United Nations or officers of your nation on behalf of The World Calendar?

BIBLIOGRAPHY OF CALENDAR REFORM

Upon consulting with The World Calendar Association, the Economic and Social Council of the United Nations, through the Secretariat, asked that the Bibliography the Association was preparing be completed and submitted by 19 July, 1947, the date of the opening of the Fifth Session. This was done, and the Note by the Secretary-General reviewing The World Calendar records its receipt and makes it available to the delegates.

IN 1942, The World Calendar Association was interested in preparing a Bibliography on Calendar Reform. The undertaking was then started by Miss Bertha M. Frick of the Columbia University Library. Two articles she wrote on the subject were published in this *Journal* in 1943. The writings surveyed began with *Historia Naturalis* by Pliny, who perished in the destruction of Pompeii in 79 A. D.

This project was revived in the latter part of 1946. The date 1682 was somewhat arbitrarily established as the beginning of the modern period of calendar reform.

There are about 12,000 items listed in this Bibliography. No pretense is made that it is exhaustive or definitive, but there is no doubt it is the most complete available.

Some introductory remarks that appeared with the Bibliography will serve to show its scope, limitations, arrangement, term of reference and conclusions. These may interest many readers, and, since the edition of the Bibliography is limited, they are reprinted here.

PREFACE

A comprehensive Bibliography of the published literature on modern calendar reform has been compiled. Scholars will readily evaluate its significance and welcome it as a necessary prerequisite of study. Experts in various fields of human activity will find that it will eliminate research which has already been done by competent authorities. Statesmen with the responsibility of deciding whether to adopt The World Calendar will be relieved of the necessity for further exhaustive inquiry and recognize that their problem is solely one of interpretation and practical application.

SCOPE

This Bibliography will show that calendar reform has been the subject of extensive research for many years. The man-hours required by the writers listed to produce the literature enumerated is obviously very considerable. Experts in practically every field attest the universality of the interest in reform, and the importance of the effects of the calendar upon practically all activities of man. The defects of the Gregorian and other calendars presently in use have been thoroughly explored and these detailed and long-considered findings have been published. The passage of time and further review and examination have resulted in definitive conclusions. So extensive and all-embracing have been these writings that original research is now hardly possible. Any further attempt to survey the subject cannot fail to traverse ground already covered.

LIMITATIONS

While this is believed to be the most complete Bibliography on calendar reform ever prepared, its limitations should be noted. The compilation was made in New York City and Washington, D. C. Recourse to the libraries of other nations would undoubtedly add additional literature on the subject. To this statement must be added the obvious practical advantage of this admitted limitation that anyone in the United States interested in going to the source material can readily do so.

COMPILERS

In making this compilation the highest standards of disinterested scholarship have been maintained. Available literature has been reported without regard to its conclusions about any one calendar. Contributions have been included without undertaking to evaluate them in terms of The World Calendar, or any other calendar.

To guard against editorial predilection in favor of The World Calendar, a substantial part of the work was done by Bertha Frick, an Assistant Professor and erstwhile Assistant Librarian of Columbia University, who is in no way connected with the calendar movement.

Associated with her was Alice B. Connolly, an expert on calendar reform literature as a result of serving for many years on the staff of The World Calendar Association.

The work was initiated and guided by the Editor of the *Journal of Calendar Reform*, assisted by Linda Halsted, who has long been a member of the staff at the international headquarters of The World Calendar Association.

ARRANGEMENT

This Bibliography has been arranged chronologically, showing the growth of the literature annually. This method enables the reader even upon a cursory inspection to recognize the length of time this subject has been of interest and the degree of sustained interest. Other arrangements may be desired by specialized scholars. This basic work facilitates such rearrangement. The literature extant can readily be grouped by authors, by publications or by subjects.

TERM OF REFERENCE

Although The World Calendar alone is before the United Nations, and the history of calendar reform shows that this is the only proposed revision with a chance of acceptance, the preceding paragraphs of this Introduction indicate that this Bibliography has been prepared in accordance with the highest dictates of scholarship. The Bibliography itself will be the best evidence of the objectivity and impartiality of those who prepared it.

A complete and thorough review of the circa 12,000 items herein listed would require a man's full time for a great many years. Were he also to undertake to study the action of many organizations, it is doubtful that he could complete the study within a lifetime.

CONCLUSIONS

The desirable and necessary preliminary study to calendar revision has been completed and is available.

There comes a time in every development when research, conference and discussion reach a terminal point. Calendar revision reached this point some time ago. All facts are known. The issue is clearly drawn. The anticipated results are manifest. Action is due, and overdue.

To suggest now that further general study is necessary or that plans other than The World Calendar need to be studied again is merely confusing the issue or evading responsibility for making the final decision.

In previous revisions of the calendar the basic objective was mainly to attain a calendar which corresponded to true time. The World Calendar accepts the time of the year as provided by the Gregorian calendar and its division into 12 months, 52 weeks, weeks of seven days, and starting each week on a Sunday. It merely eliminates various defects and by a few changes attains the desirable and needed objective of making the calendar perpetual, fixing holidays, providing equal quarters, enabling a pattern of 31, 30, and 30 days each quarter and starting each year as well as each week on Sunday with World Holidays added.

A careful study of the literature on calendar revision will show progressive agreement upon what is now known as The World Calendar. Those who have seriously studied the subject practically unanimously favor the calendar proposal before the United Nations.

For the first time in recorded history, the peoples of the world must through their governments themselves revise the calendar to meet modern needs. Civil authorities alone have this power.

The United Nations is clearly the instrumentality charged with the duty of internationally providing this world benefit. The responsibility vested in the United Nations is also its opportunity for service to mankind.

OBITUARY NOTES

CARRIE CHAPMAN CATT is at rest. She died at the age of 88 of a heart attack on Sunday, 9 March, 1947.

The years of her life were lived intensely. She was one of the pioneers in the movement for woman's suffrage. She founded the National League of Women Voters in 1919, and served as honorary president until her death. Her political sagacity and organizing ability channeled the suffrage movement along political lines and were primarily responsible for adoption of the Nineteenth Amendment to the United States Constitution in 1920.

After more than 30 years of crusading, writing and speaking for this cause, she turned her attention to world peace. She headed the National Committee on the Cause and Cure of War. She was honorary vice president and a board member of the American Association for the United Nations from the time it was founded in 1923 as the League of Nations Association. She served for many years as a member of the United States Advisory Committee of The World Calendar Association.

THE RIGHT REVEREND JAMES DE WOLF PERRY, the former Presiding Bishop of the Episcopal Church in America, died at the age of 75. During his life he served as senior Red Cross Chaplain with the American forces during World War I. As a zealous advocate of Christian unity he was Vice President and Chairman of the Executive Committee of the Commission on Faith and Order which sponsored the world-wide meeting on Church Unity at Lausanne, Switzerland, in August, 1927. He was a member of The World Calendar Association from 1935 to his death on 21 March, 1947.

Several other eminent supporters of The World Calendar have died before its adoption.

Sir Frederick G. Hopkins, the noted British biochemist, discoverer of vitamins and winner of the Nobel Prize in 1929, died on 17 May, 1947.

Dr. Ralph Hickok, who retired in 1941 as President of Western College for Women at Oxford, Ohio, a one-time Professor of History and Biblical Literature at Wells College, died on 25 April, 1947.

Also, *Sir Charles V. Boys*, of St. Marybourne, Andover, England, a physicist; and the *Reverend James E. Gregg*, of Waterbury, Connecticut.

CALENDAR LIKENED TO CLOCK

By Wade Poston, Jr.

The Key West Citizen of Florida published an article by Wade Poston, Jr., on 22 February, 1947, on its front page. This article is here abridged and reprinted.

THE axiom that "Time is worth money" has surely been proved in Key West by the recent repair and electrification of the city's two tower clocks. The 50-year-old Monroe County courthouse clock, formerly run by a system of 1000 and 1500 lb. weights, was electrified at a cost to the county of \$998.75. A similar job was undertaken for the 800-lb. weight-driven City Hall clock for \$1,126.50.

Now, no one begrudges these expenses, for it is obvious that clocks must tell the correct time, which neither the county nor city clock has done for months or years.

However, there is a third clock, just as important to the people of Key West, which is badly awry. This third "clock" is our hopelessly outmoded and inefficient calendar. The fortunate difference is that it can be fully repaired at almost no cost at all!

The city hall clock, in the many years since it was installed, never measured time more confusedly than the calendar on the wall, with its irregularly arranged short and long months, its grasshopping month dates which never fall two years in succession on the same week-end, boom one year and fall flat the next.

In the same way that the City commission of Key West decided that the clock must be repaired, so the Congress of the United States is now considering the repair and renovation of the calendar. A bill has been introduced which proposes the general adoption of the sensible and businesslike World Calendar, to take effect 1 January, 1950.

The new calendar, which has been advocated for a number of years by the non-profit World Calendar Association of New York City, provides for a few simple, almost unnoticeable, changes in our present calendar, which would completely "electrify" it, and take it off the old "weight-system" basis.

The first of these changes involves a slight alteration in the lengths of the months, and arrangements of the months into a pattern which could be remembered without the aid of a nursery rhyme.

The second improvement would permanently link together the weekdays and the month-dates so that, for example, 25 December would always fall on a Monday each and every year, instead of wandering throughout the week as it now does.

The cure for this is simply not to include the final day of the year as a day of the week. For instance, the year 1950 will begin on a Sunday. On Saturday, 30 December, the year will have completed exactly 52 weeks. Now, if 31 December could be skipped, 1 January, 1951, like 1950, would also fall on a Sunday; and 1950 and 1951, and every year thereafter, provided the same system were followed, would be exactly alike.

Unfortunately, we cannot completely overlook 31 December, because the actual sun-year is 365 days long; however, what we can do is not regard this overflow day as a day of the week, nor a day of the month, but simply as a day of the year, coming between Saturday, 30 December, 1950, and Sunday, 1 January, 1951. The intermediate day would have no week name, but would bear the special title of Year-End Day, and might conceivably be celebrated as a world-wide holiday of thanksgiving and rededication to the ideals of enduring peace.

In the same way, Leap-Year Day would be moved from its present awkward position, and inserted at exactly the half-year point between Saturday, 30 June, and Sunday, 1 July, every fourth year, as a second world-wide holiday.

Among the many beneficial aspects of the new World Calendar would be the fact that all months would have exactly 26 working days (plus Sundays); all quarter-years and half-years, which are the most important units in business accounting, would contain 91 days and 182 respectively, instead of varying from 90 to 92 days and 181 to 184 days, as they now do; and businesses, schools, churches, and other organizations who plan ahead on yearly schedules would find their tasks greatly simplified because all years would be alike, and a schedule set up for one year could be used unaltered for the next.

The transition from the present calendar to the new World Calendar can be painlessly made on 1 January, 1950, since that year will begin on Sunday in both the old and new systems. And the best part of it is that the repair of this third "clock" will cost not thousands of dollars, but may be encouraged by as little as a penny postcard addressed to your Congressman.

STATEMENTS BY COLLEGE PRESIDENTS

This compilation of excerpts from the statements by college presidents lists their position at the time of their pronouncement.

WALTER D. AGNEW,
former President, Huntingdon
College, Montgomery, Ala-
bama.

I have been interested in this matter for a long time. I am heartily in favor of your proposed calendar.

MOTHER ALOYSIUS,
former President, Fontbonne
College, St. Louis, Missouri.

Calendar reform will be a blessing to educational institutions and it will be worth while to call an international convention to consider the adoption of it.

DOUGLAS ANDERSON,
former President, Tulane Uni-
versity of Louisiana, New Or-
leans.

There is no doubt in my own mind that our present calendar is in need of reforming. The World Calendar appears to me to be a most excellent solution of the problem.

JAMES R. ANGELL,
former President, Yale Uni-
versity, New Haven, Con-
necticut.

I shall be entirely willing to be recorded as favoring the twelve-month equal-quarters plan for a revision of the calendar. The matter is not one in which I feel any particularly active interest, but of the various proposals for a change this seems to me on the whole the wisest.

WALLACE W. ATWOOD,
President, Clark University,
Worcester, Massachusetts.

I am a strong believer in the revision of our Calendar. I am convinced that the 12 months must be retained and I think that an equal number of days in each quarter is desirable. The World Calendar is, I believe, the best solution of the problem.

HUGH P. BAKER,
President, Massachusetts
State College, Amherst,
Massachusetts.

As I was Manager of one of the Departments in the Chamber of Commerce of the United States at the time the Chamber was considering calendar reform, I became very much interested in the matter of calendar reform and came to believe strongly in it.

MURRAY BARTLETT,
former President, Hobart
College, Geneva, New York;
Founder and former President,
University of the Philippines.

I am convinced that the proposed twelve-month and equal-quarter calendar advocated by The World Calendar Association, Inc., is from all points of view, and especially that of education, more convenient and, therefore, superior to any other proposed form. In my opinion, it would be a great advantage in arranging the educational programs of colleges and universities throughout the world.

L. W. BOE,
former President, St. Olaf
College, Northfield, Minnesota.

As a schoolman I am very much in favor of any calendar change that will make it possible for us to eliminate the eternal problem of establishing the calendar for the school year.

ISAIAH BOWMAN,
President, Johns Hopkins
University, Baltimore, Maryland.

The subject happens to be of special interest to me.

E. J. BRAULICK,
President, Wartburg College,
Waverly, Iowa.

The presentation as presented by The World Calendar Association appeals to me very much, since it does not disrupt the social, economic and religious calendar setup which we now have. Calendar reform is necessary. The sooner it is instituted the better it will be. Thus I fully approve of the proposed reform.

C. E. BREWER,
former President, Meredith
College, Raleigh, North Carolina.

I do feel that some modification of the present calendar is badly needed. I will go a step further and say that the one proposed is an excellent one and I should like thoroughly to see it inaugurated.

JOSEPH BREWER,
former President, Olivet College,
Olivet, Michigan.

I feel sure that a change such as is contemplated by The World Calendar Association would be beneficial.

JULIAN A. BURRUSS,
President, Virginia Polytechnic
Institute, Blacksburg, Virginia.

I have been interested for a long time in the subject of Calendar Reform. So far as I am concerned, I see no objection to the suggested change, but on the other hand, from the standpoint of the schools and colleges, I believe it would be to advantage.

CHOU LOU,
President, National Sun Yat-Sen
University, China.

As the works of Calendar Reform tend to make improvements on the Calendar existing, it is a question of no minor importance and will receive warm attention from peoples of different parts of the world.

M. EARLE COLLINS,
President, Tarkio College,
Tarkio, Missouri.

I think this a very worthy project. I highly approve of such calendar reform and of all such reforms proposed I think The World Calendar meets the need the best.

W. H. CRAMBLET,
President, Bethany College,
Bethany, West Virginia.

For many years, I have been interested in some form of calendar reform and have watched with considerable interest the headway that has been made in influencing public opinion along these lines. It is difficult to move against the inertia of long established procedure, but I believe the advantages that will follow the suggested change will finally bring about this reform.

**MOTHER GRACE C.
DAMMANN,**
President, Manhattanville
College, New York, New
York.

Adoption of The World Calendar would be extremely helpful in arranging annual school calendars. It seems to be the very best of the proposals which have been made.

TYLER DENNETT,
former President, Williams
College, Williamstown, Mas-
sachusetts.

Certainly some such change as you suggest would greatly simplify the arrangements incident to the division of work in an academic year.

H. J. DERTHICK,
former President, Milligan
College, Tennessee.

I am not much interested in the change of the calendar, yet if it should come to a vote I would vote for it.

BAYARD DODGE,
President, American Univer-
sity of Beirut, Syria.

Those of us who are interested in educational work in a foreign country are naturally sympathetic with the idea of a more stable calendar. In this country, we have many feasts which change in accordance with the Moslem and Oriental calendar so that we appreciate the need for regularity even more than persons who live in America can value it. From this distance it is impossible to do more than to say that it would be a great help if people in general could adopt the sort of calendar that you have suggested, and to emphasize how greatly it would simplify educational work if regularity could be accomplished.

L. N. DUNCAN,
President, Alabama Polytechnic Institute, Auburn.

Your proposed calendar impresses us very favorably. We have studied it and thought about it; and our conclusion is that this proposed calendar would be a substantial improvement over the calendar which we now have. In fact, we are unable to suggest any way to improve it. We agree heartily with you that our present calendar is not satisfactory from an educational standpoint. It presents a problem each year; and each year the problem is different.

DAVID M. EDWARDS,
President, Friends University,
Wichita, Kansas.

It seems to me the plan continuing the arrangement of dividing the year in twelve months is superior to the one dividing the year into thirteen months.

EDWARD C. ELLIOTT,
President, Purdue University,
Lafayette, Indiana.

In spite of all the objections that have been raised against calendar reform, I am very much in favor of it.

J. O. ENGLEMAN,
former President, Kent State
University, Kent, Ohio.

I have long favored some such reform in our calendar.

DIXON RYAN FOX,
President, Union College,
Schenectady, New York.

The reform of the calendar so that the weekdays would always have the same numerical order in the month would be of great value to future historians. To be able to know that an event of April 2 in some past year fell upon Monday would help a scholar to relate it to preliminaries which took place on March 31. His imagination would properly suggest a conjecture of an intervening Sunday. The reforms proposed are of small inconvenience compared with those which marked the change in the sixteenth century to the Gregorian calendar. England's reluctance to comply for nearly two centuries confused itself and greatly confused historians since. In my judgment, however, any change should preserve the twelve-month scheme. Future historians would thank us if we could place the dates so that the weekday and the month-day always came together. For example, if an historian finds the date September 13, he immediately knows that it was on Wednesday in the middle of the week. This might give a different interpretation to an event than would be given if the date were September 11, which he would know happened directly after a Sunday.

W. SHERWOOD FOX,
President, University of West-
ern Ontario, London, Can-
ada.

I believe that only the new 12-month calendar as proposed in your pamphlet has any ghost of a chance of being accepted since it is less likely to collide with the general inertia against a change from things as they are.

W. H. FYFE,
former Principal and Vice-
Chancellor, Queen's Univer-
sity, Kingston, Ontario, Can-
ada.

I am very glad indeed that there is a new and vigorous movement for calendar reform. It would be a great boon to schools and universities and also to business organizations and to all people who appreciate holidays.

FRANCIS P. GAINES,
President, Washington and
Lee University, Lexington,
Virginia.

I am tremendously interested in the field in which you have done such brilliant and successful work. I do not have to add that I wish you well.

I. J. GOOD,
President, Indiana Central
College, Indianapolis.

I agree with you that some kind of reform is inevitable, and college students should know what the problem is and the proposals for change.

CLARENCE W. GREENE,
former President, Parsons
College, Fairfield, Iowa.

I have been much interested in efforts being made to bring about the adoption of a World Calendar that would help in systematizing the organization of time in the interest of simplicity and convenience.

EDWARD M. GWATHMEY,
President, Converse College,
Spartanburg, South Caro-
lina.

I have thought a great deal about the proposed calendar reform in the past years, and I am heartily in favor of a readjustment of our calendar.

PERCIVAL HALL,
President, Gallaudet College,
Washington, D. C.

Personally I believe the plan you advocate is far superior to the thirteen-month plan and is probably the best of any of the suggestions that have been made for a change.

A. M. HARDING,
President, University of Ar-
kansas, Fayetteville.

After a few years it is going to be necessary to rebuild the entire world and I hope at that time we will be able to take advantage of The World Calendar.

J. C. HARDY,
President, Mary Hardin-Bay-
lor College, Belton, Texas.

I like The World Calendar. It is much better than any proposal that I have examined. I see no reason why it should not be put into operation at an early date. It would be a great relief to school and college administrators.

A. D. HENDERSON,
President, Antioch College,
Yellow Springs, Ohio.

I am deeply interested in the subject of calendar reform. Having had considerable experience as a certified public accountant, I have long been sympathetic with the plan of attempting calendar reform and having equally divisible periods for accounting and other purposes.

R. K. HICKOK,
President, Western College,
Oxford, Ohio.

I have for some time been deeply interested in this project of calendar reform and sincerely wish the movement could make more rapid progress. I am certain the end is to be attained some day and surprised that there should have been any opposition to it.

W. E. HOTCHKISS,
former President, Armour Institute of Technology, Chicago, Illinois.

The need for calendar reform seems so obvious that one wonders it hasn't happened before.

WILLIAM O. HOTCHKISS,
President, Rensselaer Polytechnic Institute, Troy, New York.

In my judgment, The World Calendar would be a boon to business and education.

L. H. HUBBARD,
President, Texas State College for Women, Denton, Texas.

I want you to know that I am very much in favor of the calendar changes suggested. They would greatly simplify college schedules. I hope very much that these reforms will become effective at an early date.

FRANKLIN W. JOHNSON,
former President, Colby College, Waterville, Maine.

I shall be glad to do anything I can to promote the adoption of such a change, which seems to me to be desirable from every possible point of view.

WEIR C. KETLER,
President, Grove City College, Grove City, Pennsylvania.

I am interested in the calendar proposed. I see many advantages in the adoption of such plan and no serious disadvantages. It impresses me as being a much more practical plan than the 13-month plan.

JAMES C. KINARD,
President, Newberry College, Newberry, South Carolina.

I am interested in the problem of calendar reform. I feel that this is a subject of vital interest.

K. C. LEEBRICK,
former President, Kent State University, Ohio.

You are at liberty to mention me as one who is enthusiastically in favor of The World Calendar. In past years I have written several articles and have spoken several times in favor of this calendar.

ROBERT D. LEIGH,
former President, Bennington College, Bennington, Vermont.

I can see no possible objection to The World Calendar plan such as is suggested except the tremendous fact of inertia.

LI SHU-TIEN,
President, Pei-Yang University,
Tientsin, China.

May I avail myself of this opportunity to assure you that you will have my full support to the calendar reform movement.

IRWIN J. LUBBERS,
President, Central College,
Pella, Iowa.

I am very much interested in the problem and shall do all in my power to facilitate the change from our old calendar to The World Calendar. The new twelve-month calendar with four equal quarters would prove a great boon in planning an educational calendar year.

HENRY N. MacCRACKEN,
President, Vassar College,
Poughkeepsie, New York.

The advantages of quicker calculation as to seasons and dates outweigh any sentimental objection to the change. The World Calendar seems to me a very practical compromise, and goes about as far as people are willing to go at this time in reform. Let me wish The World Calendar Association all success in the prosecution of the plan.

A. Z. MANN,
former Acting President,
Springfield College, Springfield,
Massachusetts.

I believe the question of calendar reform should be made a matter of education, particularly in the secondary schools and colleges and that we should endeavor to raise up a generation which would see the need for this change and be willing to break the traditions which are necessary in order to secure a better calendar arrangement.

H. F. MARTIN,
former President, Midland College,
Fremont, Nebraska.

I am very favorable to and interested in The World Calendar.

I. N. McCASH,
former President, Phillips University,
Enid, Oklahoma.

I have been interested in calendar reform for a number of years and have made a number of addresses on behalf of its reform. The need of a change is so apparent and the requirements of the ever-increasing world industries will compel a more satisfactory calendar.

W. J. McCONNELL,
President, North Texas State Teachers College,
Denton.

In my opinion, the calendar described is the most feasible and most workable that has come to my attention.

W. H. McMASTER,
former President, Mount Union College,
Alliance, Ohio.

I heartily endorse the reform which you suggest. I know how difficult it is to change an age-long custom, but it can be done, and your plan involves the fewest changes. I am heartily for it.

FRANK L. McVEY,
former President, University of Kentucky,
Lexington, Kentucky.

I am sure that the reform of the calendar will come when the youngsters of today really insist upon it.

D. W. MOREHOUSE,
former President, Drake Uni-
versity, Des Moines, Iowa.

Heartily in sympathy with the project which you have under way. The articles on the calendar by so distinguished men are very valuable and should be in the hands of high school students and high school teachers, especially of history, geography and general science.

WALTER C. MURRAY,
former President, University
of Saskatchewan, Saskatoon,
Canada.

The proposed World Calendar is the simplest and seems to me the most desirable of all the recent proposals I have seen. I am sure its adoption would be a great convenience and I see no reason why there should be unnecessary delay.

WILLIAM ALLAN NEILSON
former President, Smith Col-
lege, Northampton, Massa-
chusetts.

I am very strongly in favor of the proposed change in the calendar on the twelve-month basis and I wish every success to The World Calendar Association in its efforts to make it prevail.

G. BROMLEY OXNAM,
former President, DePauw
University, Greencastle, In-
diana.

It is hard for me to understand why it is necessary to spend so many years in educating people to the place wherein they are willing to make those adjustments that common sense and self-interest demand. There are many good reasons for adopting The World Calendar you propose. I do not know reasons that would justify its rejection.

W. S. A. POTT,
President, Elmira College,
Elmira, New York.

I can see no rational objections to the suggested change. I, myself, favor it.

ALFRED H. RABE, S.M.,
former President, St. Mary's
University of San Antonio,
Texas.

I have since some time been interested in the calendar reform problem, and I have resolved to talk on the subject to our students and to civic clubs of the city.

E. E. RALL,
President, North Central
College, Naperville, Illinois.

Approve heartily of the Reformed Calendar you are advocating. Colleges and universities as a class will benefit greatly by it. They should be most actively solicited for support.

C. E. RARICK,
former President, Fort Hays
Kansas State College, Hays,
Kansas.

To me this is a very interesting subject. I shall not attempt to do more than to express my interest and the wish I have that some way may be found by which eventually this reform of our calendar, or something equally meritorious, may be accomplished.

F. B. ROBINSON,
former President, College of
the City of New York, New
York.

Long ago I expressed myself as favoring the proposed calendar reform. It is my impression, however, that calendar reform will come as the result of a recommendation from specialists rather than as an effect of popular demand.

H. S. ROGERS,
President, Polytechnic Institute of Brooklyn, New York.

The world has moved far along in its application of rational thought to industry, agriculture, business and government since the days of Augustus. Surely our thinking has advanced to the point where a rational simplification of the calendar can be adopted. I am heartily in favor of the work of The World Calendar Association and believe that the calendar of twelve months proposed by them is particularly advantageous for our educational institutions.

CHARLES E. SCHOFIELD,
President, Southwestern College, Winfield, Kansas.

I have never gotten very much disturbed by the clamor of the people that uphold that calendar reform threatens religion. It is quite childish and beside the point. On the whole, I am inclined to favor the proposition.

WALTER DILL SCOTT,
former President, Northwestern University, Evanston, Illinois.

Your World Calendar seems to me to be ideal.

GEORGE FINLAY SIMMONS,
former President, Montana State University, Missoula.

There is no argument on the part of most of us as to the advisability of smoothing out the calendar. We should be very happy if this could be done.

CHARLES J. SMITH,
President, Roanoke College, Salem, Virginia.

I see no reason why this very sensible change should not take place.

W. G. SPENCER,
President, Franklin College, Franklin, Indiana.

The World Calendar seemed to me to solve the problems that were foremost in the calendar, more steadily and more reasonably than any other that I know of.

LUDD M. SPIVEY,
President, Florida Southern College, Lakeland.

I am following your work with interest. My hope is that the reform will come in my day.

ROBERT G. SPROUL,
President, University of California, Berkeley.

I have been much interested in the proposals for calendar reform. There is no doubt but that a vast amount of energy and time has been lost through our present illogical calendar, which makes a proposal of this character one with which every intelligent man should agree. Anyone who knows the history of our calendar should realize that there is no sanctity in our present arrangements, even though there may be antiquity.

CLARENCE C. STOUGHTON,
President, Wagner Memorial
Lutheran College, Staten Is-
land, New York.

I have long been interested in this reform and shall do all I can to help its accomplishment.

C. P. SUMMERALL,
General, President, The Cita-
del, Charleston, South Caro-
lina.

Briefly, it is my belief that The World Calendar should be adopted.

EDWARD H. TODD,
former President, College of
Puget Sound, Tacoma,
Washington.

To my mind the proposition of The World Calendar, making each year the same and every month the same, is practical. It would simplify greatly the making of our college calendar from year to year. I trust that some action may be taken to hasten the change in the calendar as you have set it up.

WILLIAM PEARSON TOLLEY,
former President, Allegheny
College, Meadville, Pennsylv-
ania.

Changing the calendar is bound to be a slow, up-hill task, but it will come as soon as there is adequate public information on the question.

GEORGE J. TRUEMAN,
President, Mount Allison Uni-
versity, Sackville, New Bruns-
wick, Canada.

I am quite sure that reform of the calendar is long overdue.

ROBERT C. WALLACE,
President, Queen's Univer-
sity, Kingston, Ontario, Can-
ada.

I feel that much would be gained by the adop-
tion of this calendar and can see no serious objec-
tion to it. I wish you success in the project.

C. C. WILLIAMS,
President, Lehigh University,
Bethlehem, Pennsylvania.

The urgent need for calendar modernization is obvious, and the superior merits of the twelve-month World Calendar, with respect to practicality and ease of introduction, must commend it to any in-
telligent judgment.

ROBERT WILLIAMS,
former President, Ohio
Northern University, Ada,
Ohio.

I think very well of calendar reform indeed, and believe that it would make for greater regularity in the operation of our business year especially.

MARY E. WOOLLEY,
former President, Mount
Holyoke College, South Had-
ley, Massachusetts.

I am "all for" this action and hope it may be taken in the near future.

L. C. WRIGHT,
former President, Baldwin-
Wallace College, Berea,
Ohio.

The importance of getting calendar reform into the thinking of youth is wisely recognized. And how much confusion could be avoided by regulating the calendar on fixed and scientific principles.

CURRENT PRESS COMMENT

A World Calendar?

New York (N. Y.) United Nations World
April 1947

SINCE 1582, school boys and girls have been struggling along with the "30 days hath September . . ." calendar. That's long enough, thinks Alberto Arca Parro, Peruvian delegate to the Economic and Social Council. He has submitted a resolution recommending that a committee be set up to study a proposed World Calendar—subject to General Assembly approval.

The new calendar has 12 months and is divided into four quarters. The first month in each quarter has 31 days and the rest have 30, making a total of 364 days. Leap Year remains as a vestigial item from the Gregorian calendar but the extra day comes at the end of June instead of February. To make the year equal 365 days, the calendar adds a worldwide holiday at the end of December . . . and Christmas would always come on Monday!

The League of Nations sponsored an International Calendar Conference in 1931 when 500 draft calendars were proposed. From these, two survived—the present World Calendar and a 13-month calendar which was abandoned. Fourteen countries endorsed The World Calendar in 1937. It is understood that the approval by ten of these countries, now members of the United Nations, will still hold good.

The Year and the Sun

Ottawa (Can.) Evening Citizen
11 December, 1946

WHAT is important to us, as civilized people with a complex and closely integrated society is that our year shall begin regularly and be evenly and conveniently divided. Our present calendar is decidedly inadequate. Definitely it should be improved—and it can be. The chief necessity is that enough people should realize the need, study the matter and press for a change. There are a number of ideas for reform, but probably the most

sensible and least drastic is that called The World Calendar, which we commend for study to those not already familiar with it.

Calendar Reform Urged To Aid World Understanding

Hobart (Australia) Mercury
16 May, 1947

A World Calendar, on the 12-month equal-quarter system, would be a move towards international understanding, said Mr. H. H. Cummins in an address on "Calendar Reform" to the Hobart Rotary Club yesterday.

Misunderstanding between nations on interpretation of the present calendar system could cause considerable friction in the meeting of international contracts and debts. With the new system there would be perpetual harmony, with the establishment of an accurate balanced international system of time reckoning.

International organizations for the reform of the calendar have been set up in 32 countries including Australia, he said, and 14 nations have already indicated their official approval.

Calendar Reform

Oakland (Cal.) Tribune
26 March, 1947

IT is just possible the United Nations will act toward giving us that new calendar for which The World Calendar Association so long has been asking. The great organization which must talk of atomic energy, international police and the preservation of peace has the calendar proposal before it. The plan, in brief, is for a calendar made perpetual "by equalizing the quarters of the year, by fixing holidays and otherwise stabilizing the world's timetable." There would be no larger number of pay days or rest days, but statistical calculations in connection with measurement of time and ordinary convenience would be benefited.

EXCERPTS AND REVIEWS

The World Calendar

By L. MONTERO y TIRADO

President, Peruvian Affiliate of The World Calendar Assn., Int'l.

From El Comercio, Lima, Peru, 14 March, 1947

ON 28 February, according to cable reports, Dr. Alberto Arca Parro was elected second vice-president of the Economic and Social Council of the United Nations. After expressing thanks for his election, he requested that the motion of Peru be placed on the agenda. This motion calls for the creation of a Committee to study the possibility of establishing a World Calendar to go into effect on 1 January, 1950.

The idea for the reform has been imposing itself step by step, and for years astronomers on the one hand and business men and legislators on the other have been preoccupied with these inconveniences and have opened competitions to reward the best projects for calendar reform containing evident improvements over the present calendar.

The reform movement, if this expression may be used, is full grown and has left the literary and discussion stage to enter the field of legislative and parliamentary action.

Proposals for a World Calendar

From United Nations Weekly Bulletin, Lake Success, N. Y., 8 April, 1947

THE Council had before it a proposal by the Peruvian delegation for a new calendar, to be adopted on 1 January, 1950, which would have 12 months and equal quarters, and a perpetually stable pattern of quarter years, months, weeks, days and fixed holidays. The first month in each quarter would have 31 days, the other two (including February) would have 30. There would be a "Year-End World Holiday," following Saturday, 30 December, and preceding Sunday, 1 January. In leap

year, a "Leap-Year World Holiday" would follow Saturday, 30 June, and precede Sunday, 1 July.

This proposal was deferred for consideration until the Council's next session, and, in the meantime, the Secretariat was instructed to prepare all available material on the question and to inform Member Governments of the proposal.

Presses Idea to Revamp Calendar

From The Bethlehem Globe-Times, Pa., 1 May, 1947

AT today's noon luncheon meeting of the Bethlehem Kiwanis Club, Miss Elisabeth Achelis, New York, known as "the Calendar Lady," was the speaker. She was introduced by E. D. Reimer, of Easton, and urged assistance in adoption of The World Calendar which she represents. The new measure of time would give the world two holidays; at mid-year and at the end of the year there would be "W," or World Days, not having Sunday, Monday or any other designation.

The speaker pointed out that legislation has been introduced in Congress for adoption of The World Calendar which she is actively promoting, declaring that the present, or Gregorian calendar, is outmoded. She termed the latter "antique, a hodge-podge and combination of 14 different kinds of years and 28 different types of months."

The World Calendar, she said, would always begin the year with Sunday, 1 January, and the working year would begin with Monday, 2 January. The seven-day week would remain unaltered but the quarter and half-years would be equally divided. Every quarter would have exactly three months, the first to have 31 days and the others to have 30 each. In addition, each quarter would have exactly 13 weeks and every quarter would begin with Sunday and end with Saturday.

Reformed World Calendar

From Geneva Times, N. Y., 24 March, 1947

FOR a number of years the matter of a reformed calendar for the whole world has been advocated and has been given considerable attention.

And now the delegation from Peru has submitted a draft resolution to Trygve Lie, Secretary-General of the United Nations, for inclusion of The World Calendar on the agenda of the current Economic and Social Council of the United Nations. The proposed study is expected to come before the Council within the next few days.

The World Calendar has been urged for years by the International Chamber of Commerce, the International Labor Organization, and national and local chambers of commerce all over the world. It also has the support of many scientific, educational, commercial, industrial, fraternal and other organizations. This specific calendar revision has been advocated for years by The World Calendar Association.

On the basis of unofficial reports from official sources it appears a majority favor the appointment of a committee to study the desirability of adopting The World Calendar. In fact there seems to be no opposition.

"The International Date Line, time zones and Standard Time were achieved comparatively recently. These have proved highly beneficial," said Westy Egmont, Director of The World Calendar Association. "The modern plane, train, ship, telephone, telegraph and radio are bringing the peoples of the world into closer and more intimate relationship with one another. With the emergence of a small and interrelated community of nations embracing the entire human family, a single calendar, with each year perpetually the same, with equal quarters, giving to each date its own day, fixing holidays so they always fall on the same day and date every year, in short, The World Calendar, is a long overdue improvement. Other standards of time have been stabilized. The time-table for reckoning the years needs to be stabilized."

Proposed World Calendar

By DR. J. H. DOBSON

Honorary Chairman of the National Anti-Waste and Conservation Organization.

From The Outspan, Bloemfontein, South Africa, 18 April, 1947

THE proposed World Calendar, sponsored by The World Calendar Association, International, with headquarters in New York, is the result of a process of elimination of numerous proposals in various parts of the world over the past 50 years. In 1937 the League of Nations submitted this World Calendar to the various nations for their opinion. It received the approval of no fewer than 14 nations.

It is to the credit of the people of the U. S. A. that The World Calendar Association has been publicizing the advantages of the proposed new World Calendar for many years. The purpose of The World Calendar is to stabilize and equalize the civil calendar, thus making every year the same, with great economy in not having to print calendars every year and the fixation of festivals. This is truly anti-waste.

It would appear that many of the nations of the world, as a result of the 1939/45 war, are beginning to realize the necessity of being drawn closer together with common understandings, in which connection there are tremendous advantages to be gained by the adoption of a World Calendar common to all nations. Fourteen nations have already signified their approval of it, and it is considered that if the United States of America, the United Kingdom and the Union of Soviet Socialist Republics signified their approval, all the remaining nations would fall into line.

Nations other than the United States should take their fair share of the labor involved in the introduction of The World Calendar, as it is manifestly unfair that the U.S.A. should have to do all the spadework. Therefore, every nation, like South Africa, is invited to assist in its promulgation, because each nation will appreciably benefit in its economies and simplicity.

FROM THE MAIL BAG

After acquainting myself with your proposition for a World Calendar, I feel that such a change would prove to be very beneficial to mankind.—H. E. Francisco de P. Gutierrez, Ambassador of Costa Rica, Washington, D. C.

You are engaged in a significant work which will play its part in our great effort toward one world.—Thomas J. Watson, President, International Business Machines Co., New York, N. Y.

I need hardly say that we remain in full sympathy with the objectives sought by your Organization.—Pierre Vasseur, Secretary General, International Chamber of Commerce, Paris.

I am personally much in favor of the adoption of the "World Calendar" supported by your Association. I believe it is a "must" for our world of today, and wish you early success.—E. Jerome Webster, Jr., Secretary General, International Trade Association, Inc., Washington, D. C.

My best wishes for the accomplishment of your task and the success of your cause.—Mt. Rev. Mgr. Pancratios, Archbishop of Ganou and Horas, Istanbul, Turkey.

Thank you for sending me the bound copy of Volume 15 of the *Journal of Calendar Reform*. I shall read it with interest.—James Forrestal, Secretary of Defense, Washington, D. C.

I have been receiving the *Journal of Calendar Reform* for a long time, and it is high time for me to thank The World Calendar Association for this interesting periodical. I have found much historical data of interest, besides the material in favor of the new calendar. Need I tell you how much the reform would aid us in making up our academic schedules? All of the defects of the old calendar are particularly annoying in the school year, and all of the advantages of the new World Calendar, without exception, would be immensely appreciated by those who plan academic work.—Kenneth J. Conant, Professor of Architecture, Harvard Univ.

I am delighted to see that The World Calendar is coming into new attention. If you can get the United Nations back of this, this might be the time to put it over; and if that could be done, it would be of tremendous value to the whole world. I wish you all success.—John W. Darr, Pres., Institute of Public Relations, N.Y.C.

That calendar reform is desirable and would be useful in the modern day world is unquestioned.—James L. C. Ford, Dean, School of Journalism, Montana State University.

Thank you very much for sending me the bound volume No. 15 of the *Journal of Calendar Reform*. I am an enthusiastic supporter of The World Calendar, and I certainly hope that your efforts to have this adopted will soon meet with success.—Dr. C. L. Cleminshaw, Associate Director, Griffith Observatory and Planetarium, Los Angeles.

I favor the adoption of The World Calendar for the reason that its uniformity permits easy reference by a simple feat of memory.—Arthur E. Freeland, Prosecuting Attorney, Bluffton, Ind.

It is so reasonable and simple it is difficult to see why anyone has any objections.—Theodore Sizer, Retired Director, Yale Univ. Art Gallery, New Haven, Conn.

Its simplicity will save industry many many dollars.—O. C. McLean, Jr., Industrial Market Consultant, Atlanta, Ga.

I am very much interested in getting the United States to approve and adopt this calendar change now. I can see a great deal of benefit to business concerns, and thus to the people as a whole, through the adoption of this much needed improvement in measuring time.—I. B. McGladrey, C. P. A., Cedar Rapids, Iowa.

I believe that adoption of the proposed new calendar would simplify business once society became accustomed to it.—General C. P. Summerall, President, The Citadel, Charleston, S. C.

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ONE WORLD CALENDAR FOR ONE WORLD

VOL. XVII

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TIME has been likened to a little watchman in the heart, to a race between birth and death, to a few moments separating the past and the future. Whether one thinks of it poetically, philosophically or practically, the calendar divides, recalls, anticipates and coordinates time.

Life itself, and every plan and every activity on earth, are measured and inextricably a part of time, and the calendar which is our standard of the year and years.

The calendar is a standard, but it is likewise an instrument. In itself it divides the weeks, months, seasons, quarters and year. It operates as a creative influence in the allocation of time. It governs thought and action.

These are some of the many reasons why the movement to make the calendar more nearly perfect is so important.

Members of legislative bodies, international included, must never forget that the calendar is not a mere numerical arrangement of dates. It partakes of the nature of time itself and is virtually of the very stuff of life. One cannot disregard it or treat it as something with which to deal in the indefinite future, for it is ours only during the short period of our lives.

Time itself is beyond mortal control but the calendar is a wholly human instrumentality. Man devised it, as he invented the clock. Man has improved it, as he has perfected other tools. Man has the capacity so to revise the calendar that it will better serve his present needs. An improved calendar will facilitate man's adjustment to inexorable time.

Adoption of The World Calendar is of transcendent importance to the world because it will conserve time, stabilize time, provide balanced time units, and make divisions of time orderly. The calendar deals with one of the most basic and universal properties of life: time is of the essence.

J O U R N A L O F

CALENDAR REFORM

July, August, September
1947

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PROCEEDINGS AND DEBATES OF THE 80th CONGRESS, FIRST SESSION

Vol. 93

WASHINGTON, SATURDAY, JULY 26, 1947

No. 145

SENATE

S. 1755

IN THE SENATE OF THE UNITED STATES

JULY 26 (legislative day, July 16), 1947

MR. THOMAS of Utah introduced the following bill; which was read twice
and referred to the Committee on Foreign Relations

A BILL

To improve the calendar by making it perpetual, by equalizing
the quarters of the year, and fixing holidays.

Whereas the calendar now in general use in the United States and most
of the other nations of the world has long been the subject of study
by many of the brilliant minds of the world, including experts on time
measurements and standards, and as a result of protracted and ex-
haustive study general agreement has been reached that all nations
need an improved and perpetual calendar; and

Whereas public and private opinion in the United States and the other
nations of the world have been impressively registered, and now

demand governmental action to revise the calendar in such a way that retaining astronomical accuracy it will be mathematically and otherwise scientifically correct, unchanging, and holidays will be fixed so they will no longer jump through different days of the week. The familiar twelve months will be divided into equal quarters approximating the four seasons, and equal half-years, with three months, thirteen weeks, or ninety-one days to each quarter-year, together with equal Sundays and weekdays, and each year, quarter, and week beginning on a Sunday and ending Saturday, with the following three hundred and sixty-fifth day (Year-End Day) that completes the year as a world holiday and the three hundred and sixty-sixth day (Leap-Year Day) in leap years as a midyear world holiday; and

Whereas calendars have been changed through the ages as man's knowledge has increased and his practical needs have been altered by new conditions. The Egyptians adopted a calendar based upon their estimates of the earth's relation to the sun and the cycle of their seasons. Our present calendar is derived directly from their calendar of 4236 before Christ, as distinguished from the Hebrew moon-sun calendar and the Mohammedan moon calendar. In 45 before Christ, Julius Caesar revised the calendar of the Roman Empire, incorporating therein a twelve-month year and an extra day each fourth year upon the recommendation of the Greek astronomer Sosigenes. In anno Domini 321 the Emperor Constantine again revised the calendar by introducing the seven-day week. The before Christ and anno Domini system of chronology was not added to time reckoning until anno Domini 532 and not fully adopted until nearly a thousand years later. In 1582 Pope Gregory XIII adjusted prior calculations by dropping ten days that year. This entailed a loss of two Fridays, two Saturdays, and two Sundays, and one Monday, Tuesday, Wednesday, and Thursday, or one week and three days of that year, and was for the purpose of bringing the calendar back into step with the seasons and to set up a new leap-year rule. This calendar was not adopted by England and the then American colonies until 1752, Japan 1873, China 1912, the Soviet Union 1918, and Turkey 1927. Man has changed his calendar as he has progressed. Despite the tremendous advances of scientific knowledge since the Middle Ages, the vast changes in the life of the modern world requiring comparable calendar changes and widespread dissatisfaction with it, the Gregorian calendar is now in general use by most nations; and

Whereas every calendar has been initiated and adopted first by one nation

or by one ecclesiastical authority, and when others have accepted it they have done so one at a time. In the light of past experience one of the world's powerful nations must pioneer the way, by itself adopting The World Calendar. This does not preclude international action; and

Whereas the Committee on Communications and Transit of the League of Nations studied calendar revision from 1923 to 1937 inclusive, and as a result of such studies and a referendum to all governments found agreement in principle on the desirability and necessity of calendar revision, and fourteen nations, including China, Brazil, Mexico, Chile, Uruguay, Peru, Greece, and Norway, officially approved adoption of the proposed World Calendar. With the war ended, the United Nations established and functioning, and The World Calendar on the agenda of the Economic and Social Council of the United Nations, an opportunity again exists to carry to a successful conclusion the work so well begun at Geneva; and

Whereas since 1930 The World Calendar Association of the city and State of New York has devoted itself to the study of the calendar, also serving as a liaison and central clearing house for similarly engaged calendar committees in thirty-two other nations. The Italian priest, Marco Mastrofini, in 1834, conceived the use of the one or two extra days as a means of stabilizing the calendar, and this is the basis of The World Calendar. This Association actively participated with the League of Nations in its deliberations and the resulting study of the problem by the governments of the League's member-nations. Many of the world's distinguished astronomers, industrialists, educators, mathematicians, and other leaders have collaborated in the Association's research and ratified its findings. Members of its advisory committees are eminent in many fields. The *World Almanac* of 1946 aptly describes this institution as "the world center of calendar authority." The Association recommends to the United States Government the adoption of The World Calendar as the irreducible minimum of change consistent with the maximum of benefit. Not the product of any one mind or one nation, a civil calendar, which leaves the question of changes of religious holidays to the churches interested in them, and national, State, or local holidays to the authorities of the jurisdictions involved, The World Calendar is the solution offered by many of the world's best minds as expressed to and interpreted by this disinterested and altruistic organization, an association of individuals, most of whom are private citizens and who of their own

volition and in the tradition of this Nation and democracy have aided in blazing the trail. The problem now has reached the legislative stage; and

Whereas the United States is the world's leading mass-production country and this is largely the result of the creation and application of improved standards. This Nation's rapid progress, unparalleled productivity, and high level of living have been made possible by willingness to discard obsolescent standards and utilize new and improved standards. A new calendar as a time standard is long overdue; and

Whereas transportation companies, communications, advertising, public and private statisticians, accountants and economists, manufacturers, labor, financial institutions, and heads of educational, scientific, social and fraternal organizations, in this Nation and nations throughout the world, have recorded themselves as favoring calendar revision, and specifically as favoring adoption of The World Calendar; and

Whereas it is the consensus of expert opinion that Sunday, January 1, 1950, is the ideal date for adoption of The World Calendar, inasmuch as on that date both the Gregorian and The World Calendars coincide in starting the new year on Sunday, with the result that if the transition is then made it will be in an orderly manner without confusion and permit ample time for the substitution of The World Calendar at the start of the year. Also, this permits the second half of the century to function under The World Calendar. Not until 1956 will the calendars similarly coincide, so enabling legislation should be concluded by the end of the present calendar year to become effective January 1, 1950. This will leave two full years for preparation and if this reasonable period of time is available for adjustments the difficulties of preceding centuries attendant upon adoption of the new calendar will not be repeated; and

Whereas the United States is a member state of the United Nations, the Pan American Union, the Inter-American Economic and Social Council, and other international agencies, and has commensurate responsibilities; and

Whereas the United States should be prepared to assume a position of leadership in the much-needed improvement of the calendar, and by its own action set an example for other governments. The power and influence of the United States, especially considering the prior endorsements of fourteen other nations, might well be a decisive factor in adoption of The World Calendar; and

Whereas The World Calendar should be adopted because it will facilitate comparative statistics and tables, computations of interest, budgets, pay rolls, costs, and the many other operations in which time is of the essence; it will facilitate train, ship, and plane operating schedules and time-tables, and the coordination of communications; it will be a very great convenience by having the dates of anniversaries and holidays fall on the same day each year; and will facilitate the operation of those whose business is especially affected thereby, all to the benefit of commerce and industry, educational, social, and fraternal organizations, scientific bodies, and others, including each of us individually; and

Whereas The World Calendar should be adopted because under the aegis of the League of Nations, fourteen nations officially approved it. Appropriate agencies of this Government have long studied and approve it. With new international organizations being created to deal constructively with measures seeking world improvement, and public sentiment the world over favoring creative efforts to improve world standards, present conditions are propitious for adoption of The World Calendar; and

Whereas after study and due deliberation on the merits of The World Calendar as against the calendar at present in use, this Congress should recognize that the calendar is the Nation's and indeed the world's standard of time, the measure of every act, and the timetable of our very lives. Being fixed, more orderly and better balanced and equalized than the present calendar, adoption of the revision offered by The World Calendar will not only adjust the calendar to the requirements of our modern world but may well be reflected in greater social and individual stability, better organization of life, and more harmonious relationships: Now, therefore,

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That on and after January 1, 1950, The World Calendar
- 4 hereinafter set out in words and figures shall be the official
- 5 calendar of the United States of America and all the Terri-

6 tories subject to its jurisdiction.

7 That the President is hereby authorized and directed to
8 take appropriate administrative action within a reasonable
9 time prior to January 1, 1950, to facilitate the change by
10 the Government and by the public in accordance with this
11 Act.

12 That the President is authorized and requested to urge
13 at the earliest possible date upon the governments of the
14 nations of the world at appropriate conferences that may be
15 held and/or sessions of the United Nations and/or other
16 international bodies, that The World Calendar be adopted,
17 effective January 1, 1950.

1 The World Calendar plan is as follows:

[The World Calendar reproduced]

2 The four hundred centurial leap-year rule of the
3 Gregorian Reform is retained.

NEW PAMPHLET

A PAMPHLET just off the press is a reprint of two articles by Miss Elisabeth Achelis, one titled *The Present Calendar—A Smooth Thief* and the other *The World Calendar—A Model of Democracy*. Copies are available upon request.

HONORABLE ELBERT DUNCAN THOMAS UNITED STATES SENATOR FROM UTAH

Senate Resolution 1755 was introduced by Senator Thomas, who is a member of the very important Committee on Foreign Relations to which this proposal was unanimously referred.

WHEN Senator Elbert D. Thomas, Democrat of Utah, received an honorary degree from one of America's greatest educational institutions, the President of that institution said the degree was granted because of Senator Thomas' outstanding work for his Church, his State, and his Nation. This citation well describes his life.

Born into a merchant family in the 80's in Salt Lake City, Utah, he has always been active in business and, therefore, understands America's economics. He brought to the Senate a life of work and world-wide experiences. He was already recognized as one of America's outstanding authorities on Asia when he was assigned to the Committee on Foreign Relations. He had traveled around the world in his 20's.

He represented the United States Government in three international conferences and the Senate of the United States in two international conferences.

Senator Thomas came to the Committee on Education and Labor after having directed the employment and building affairs of his State's largest institution. Having helped to administer Utah's coal mines during a period of martial law, he knows the full meaning of strikes, lockouts, and labor strife, as well as educational and public health administration.

When assigned to the Committee on Military Affairs, he was an able leader as a result of longtime contact with the War Department, and when he became Chairman of that Committee during the war and at the time of the coming of the peace he knew our Government's aims, ideals and problems. His messages to Japan during the entire period of the war have marked him one of the outstanding successful figures in psychological warfare.

He brought to the Mines and Mining Committee first-hand knowledge and contributed much to the promotion of welfare and safety for miners.

He was the author of the Soldier Education Bill, co-author of the Wage

and Hour Act, and author of the Helium Bill, the Strategic Materials Act, and many others. He stood out whole-heartedly for the planning for the peace while we were united with our allies in the midst of war, and his contributions were many in bringing about the Dumbarton Oaks Conferences and the organization of the United Nations. He carried through the Senate the World Court Resolution and was the sponsor, after having assisted in its writing, of the United Nations Food and Agriculture Constitution.

Senator Thomas is now one of the senior members of the Senate and with Senator Hill and Senator Austin sponsored the bill providing for the unification of the armed services. He was also the senior Democratic member of the committee which drew up and brought to final passage the Reorganization of Congress Act.

Senator Thomas, the senior Senator from Utah has an A.B. degree from Utah, a Ph.D. from California, an LL.D. from Southern California and an Litt.D. from National, is chairman of the Thomas Jefferson Memorial Commission and a director of the Thomas Jefferson Memorial Association. He is vice-president of the American Society of International Law, and sometime vice-president of the American Political Science Association and a member of the American Council of Learned Societies. His name has appeared in the British *Who's Who* since 1928. He was appointed a Carnegie Professor to study international organization in 1926, and was granted the Oberländer Award for study in Germany in 1934. He was a professor and administrative officer of the University of Utah for years and has been a lecturer and visiting professor to several American, Asiatic, and European educational institutions.

He was an associate moderator of the President's 1941 Industry-Labor Conference; national delegate to the International Labor Organization Conference at Philadelphia in 1944, at Paris in 1945 and Montreal in 1946; American member of the International Commission for the Adjustment of Disputes between South Africa and the United States; member of the United States Princeton University Bicentennial Commission; sometime director of the Columbia Institute for the Deaf and was a fellow and visiting professor to the University of California. He served with the rank of Major in the Inspector General's Department of the National Guard and the United States Reserves. He has also been a member of the committee on intellectual cooperation of the Interparliamentary Union, and the author of four books, including *Chinese Political Thought* (1927), *Thomas Jefferson, World Citizen* (1942), and *The Four Fears* (1944).

In 1907 he married Edna Harker, who died in 1942, and in 1946 he married Ethel Evans. He has three daughters.

Entirely voluntarily and upon his own initiative he introduced S. 1755 for adoption of The World Calendar.

NOTE ON THE WORLD CALENDAR

By the Secretary-General of the United Nations

As a result of the unanimously adopted resolution proposed by the President of the Economic and Social Council, the Secretariat assembled all available documents and prepared the following NOTE in French, as Document E/465, 14 July 1947, translated by the Editor and published here slightly abridged. Two corrigenda, later published as Documents E/465/Corr. 1, 11 August 1947, and E/465/Corr. 2, 20 August 1947, have been incorporated into the text.

AT the fourth session of the Economic and Social Council, the Delegation of Peru submitted a draft resolution for the adoption, on 1 January, 1950, of a new calendar on the basis of the plan prepared by The World Calendar Association. This resolution involved taking two decisions:

1. The appointment by the Economic and Social Council of an *ad hoc* committee of five members to study and pass judgment on the said calendar.
2. Instructing the aforesaid *ad hoc* committee to prepare a draft resolution to be forwarded by the Economic and Social Council to the General Assembly at its forthcoming session in the event of such *ad hoc* committee considering the adoption of the calendar both feasible and advantageous.

This question was considered by the Economic and Social Council at the twenty-ninth meeting of its fourth session held on 24 March, 1947, at Lake Success. In the course of the discussions, the representative of Peru, as the author of the draft, outlined the question. He told the Council that this proposal for The World Calendar was not due to his Government's initiative but that all his Government had done was to take up an old proposal which had been receiving study for a long time. He added that the League of Nations had done much research on that question. . . . *

The Council, after hearing the representatives of China and Norway speak in favor of immediate discussion, and the representatives of the United States, Union of Soviet Socialist Republics and France in favor of postponing the question till the next session, adopted a resolution introduced by its President. According to this resolution** the Economic

* EDITOR'S NOTE: The *Journal of Calendar Reform* of the First Quarter 1947 reported in the discussion incident to introduction of the Resolution for adoption of The World Calendar.

** E/437, 54 (4)

and Social Council decided to adjourn the consideration of the proposal submitted by the representative of Peru to the next session, instructed the Secretariat to prepare whatever material was readily available for the consideration by the Council at its next session; and requested the Secretary-General to communicate to the Member Governments of the United Nations the proposed resolution of the representative of Peru.

Thus, the Secretary-General was given two tasks by the Economic and Social Council in connection with this proposal: (1) To collect as full a documentation as possible, and (2) To communicate to Member Governments of the United Nations the text of the draft resolution of the Delegate for Peru. The text of this draft having been circulated in the form of document E/291 (28 February, 1947) the second task has been performed.

Our next objective must therefore be to present a general survey of the question on the basis of available official documents and at the same time to make as full a collection of material and information on the subject as is possible in the present circumstances to be placed at the Council's disposal and, if necessary, to be used either by the Council itself or by the committee to be established by the Council with a view to studying such reform. To provide for the possibility that the Council, as one delegation intimated, might desire to undertake a general study of the various proposals concerning calendar reform, it seemed preferable not to limit the documentation to be prepared to a particular calendar, but to take in the whole of the problem of the reform of the Gregorian calendar.

The question of this specific calendar revision submitted to the Economic and Social Council is one which has previously been dealt with by international organizations over a number of years. The League of Nations studied it along with many other proposals received. The Secretary-General of the United Nations has also received other proposals for a new calendar with requests that they should be submitted to the Economic and Social Council, and these should be mentioned.

For these reasons, this note will deal with the following points:

- I. Summary description of The World Calendar, followed by a comparison between it and the Gregorian calendar, with a view to defining the nature of the Peruvian draft resolution.
- II. Brief summary of the history of calendar reforms with an analysis of the type of questions involved, in order to place the general problem of calendar reform in its proper prospective.
- III. Analytical account of the work of the League of Nations,

its investigations and conclusions, and the action taken, in order to allow the Council to appreciate what has been done and to avoid duplication of work.

IV. Classification and survey of communications received by the Secretary-General of the United Nations, relating firstly to the Peruvian draft resolution in particular, and secondly, to the problem of calendar reform generally.

V. Consequences of and problems involved in the adoption of The World Calendar.

VI. Documents and bibliography.

I. THE WORLD CALENDAR

According to the table submitted with the Peruvian draft resolution, "The World Calendar" follows the Gregorian calendar in dividing the solar year into twelve months, with the same names as in the Gregorian calendar. The most important difference between the two calendars is the distribution of the number of days over the sequence of months. There are four months of thirty-one days each and eight of thirty days each divided into four three-monthly groups. Each quarter consists of three months, first a thirty-one day month and then two thirty day months, bringing the total for the quarter to ninety-one days. The first day of the first month of each quarter is a Sunday and consequently every quarter consists of thirteen full weeks each falling on the same days and hence identical. A quarter may thus be regarded as a perpetually recurring unit. The four quarters of the year contain a total of 364 days. But since the solar year consists of 365 days, five hours, forty-eight minutes and forty-six seconds, and in order that the year may be the time determined by the movement of the earth around the sun, an additional day has been inserted at the end of December as a "year-end day," called "Year-End World Holiday."* This day corresponds to 31 December and may if necessary be treated as W December, but would not be counted in the cycle of weeks. Similarly, to solve the problem of the approximately one extra day quadrennially, leap years are contemplated, as in the Gregorian calendar, with the only difference that the additional day would be inserted at the end of June as another world holiday, known as "Leap-Year World Holiday." This second additional day, also not coming within the cycle of weeks, follows 30 June and precedes 1 July.**

To sum up, the differences between the new calendar and the Gregorian calendar now in use fall into two categories:

* EDITOR'S NOTE: The original document specifically deals with the solar year. The figures there used are the sidereal year. While these are readily converted, the Editor has substituted solar time to facilitate reading.

** EDITOR'S NOTE: A few descriptive words have been deleted and others substituted for the sake of clarity and without changing the context.

Category A—Distribution of Days in the Months

From this point of view, there are altogether six changes, five of them calculated to make the quarters equal and identical.

Two months are lengthened, viz. February by two days and April by one day. Three months are shortened, viz. March, May and August, each by one day. The additional leap-year day is shifted from 29 February to 31 June.

Category B—Stabilization of the Cycle of Weeks with the Days of the Month

Under this new calendar, the cycle of weeks is intended to be closely bound up with the calendar. The attempt to link the days of the week invariably with the days of the month for the whole year is the most important point of the reform.

Since neither 365 nor 366 is divisible by seven, the number of days in a full week, the fixed correspondence cannot be achieved in the customary way. An artifice is necessary and additional days have had to be inserted. That is the characteristic novelty of the proposal.

From the practical point of view, the adoption of the new calendar in a year beginning on a Sunday would make it possible to change over from one calendar to another without a break, and 1950 is the first to fulfill that condition.

II. HISTORY OF CALENDAR REFORM

The calendars used in antiquity by the Chaldeans, Assyrians, and Egyptians go back to at least 4000 B.C. China possessed a calendar in the YAO era, 2000 B.C. Most of these calendars used the day, the lunar month and a more or less solar year as units of time; only the Egyptians used the astral year.* Ancient Greece also had a highly developed calendar based on the apparent movements of the sun and moon. Under this system the year always began at a specified position of the sun in relation to the earth and similarly each month began with a full moon. As the solar year consists of a number of days not divisible by the number of days in a lunar month, a systematic adjustment was necessary. The Roman Republican calendar which took the place of the Greek calendar also contained twelve lunar months but the years did not follow one another immediately.** There were a few extra days between the end

* EDITOR'S NOTE: The Egyptians had the first solar year known in recorded history.

** EDITOR'S NOTE: This statement is debatable.

of one year and the beginning of the next. The Roman Julian calendar was an improvement by establishing a system of twelve non-lunar months totaling 365 days with an extra day every four years to bring the year so determined into line with the solar year.

In 1582 Pope Gregory XIII realized that, owing to an error in the method of calculation of the Julian calendar, the calendar year began with a great lag behind the seasons. He cut out ten days from the calendar of that year and devised a new formula for the leap years. The results of this reform, which was carried out in 1582, gave rise to the so-called Gregorian calendar. This calendar, first used in the Catholic countries of the West, was adopted by Britain and her colonies in 1752, by Sweden in 1753, by Japan in 1873, by China and Albania in 1912, by the Union of Soviet Socialist Republics in 1918, by Roumania and Greece in 1924 and by Turkey in 1927.

It will be seen that the chief stages of calendar reform were the following:

1. Transition from the lunar system to the combined solar and lunar system.
2. Transition from the combined solar and lunar system to the solar system.
3. Adjustment of the leap year to bring the average year into line with the period of the earth's rotation, which had come to be known more accurately.

But the present proposal for calendar reform is quite distinct from earlier reforms. It is not proposed to establish an improved basic system for measuring time or to correct errors that may creep into our knowledge of the movements of heavenly bodies; the real grounds are of a practical nature. The best explanation is given in the report by the League of Nations Special Committee of Enquiry into the Reform of the Calendar. An extract from this report follows:

Defects of the Gregorian Calendar

"Inequality in the Length of the Divisions of the Year. The divisions of the year, the months, quarters and half-years, are of unequal length. The months contain from twenty-eight to thirty-one days. As a result, the number of days in the quarters are respectively ninety (ninety-one in a leap year), ninety-one, ninety-two and ninety-two. The first half-year, therefore, contains two or three days less than the second. Another result is the unequal number of weeks included in the quarters and half-years.

"The unequal length of months, quarters and half-years is a cause of confusion and uncertainty in economic relations, in the arrangement of all statistics, accounts, commercial and transport figures, etc.

"The fact that the months contain twenty-eight, twenty-nine, thirty or thirty-one days is responsible for the fact that all calculations of salaries, interest, insurance, pensions, leases and rent which are fixed on a monthly, quarterly, or half-yearly basis are inaccurate and do not correspond with one-twelfth, one-quarter or half of the year. In order to make daily calculations in the current accounts with comparative certainty and speed, banks are obliged to make constant use of special tables. Moreover, in most of the countries of Europe, the unequal length of the months has led financial concerns to calculate deposit and current accounts on the basis of a year of twelve months of thirty days, or a year of 360 days, whereas in the discounting of bills the year is still reckoned at its exact number of days. Finally, the quarters and half-years do not contain an exact number of weeks.

"Want of Fixity in the Calendar. The calendar is not fixed: it changes each year; the year, in fact, consists of fifty-two weeks plus one or two days. Thus, if the first day of the year is a Sunday, in the following year it is a Monday (or even a Tuesday in the case of a leap year). Were it not for the extra day of the leap year the calendar would only have seven different alternatives corresponding to the seven days of the week on which the year can begin; owing, however, to the extra day of the leap year, the exact reproduction of the calendar of any year only takes place once every twenty-eight years. Thus, the day of the month falls each year on a different day of the week from the one on which it fell the previous year. In consequence:

"(a) The dates of periodical events can never be fixed with precision. Such a date can, in fact, only be determined in two ways: either by the day of the month (15 August for example) or by the day of the week in the month (the third Tuesday in October). With the present Gregorian calendar, this double method is not precise, for, if the day of the month is fixed for periodical events, this day may sometimes fall on a Sunday or general holiday.

"Each year, therefore, the authorities have to make a special decision, as for instance, for the meeting of a tribunal, the convocation of Parliament, the dates of holidays, fairs, markets, administrative assemblies, the fixing of summer-time, etc.

"On the other hand, if a special day (the first Monday in the month, for example) is fixed for these events, other difficulties arise, as the date corresponding to this day varies continually from month to month and from year to year.

"If the calendar were fixed, the dates of these events could be fixed once and for all. They would fall on the same dates as well as on the same days of the week.

"(b) The position of the weeks in the quarters varies each year, that is to say, the weeks overlap the divisions of a year in a different way each time, and complications accordingly arise in the reckoning of accounts, statistics, etc.

"(c) The end of the month is sometimes Sunday. When it falls on this day it is not possible to revise and verify immediately all the work of the previous months to establish without delay the various comparisons which are essential from a business point of view. This is a serious disadvantage in respect to accounts and statistics. The end of the month is important as regards the falling due and payment of taxes, rents, interest, etc. Also, the lack of a uniform pattern of days of the months in relation to months, quarters and half-years is a serious complication in accounting, statistics, social habits and the like.*

"(d) Finally—and this is perhaps the greatest drawback from a statistical and commercial point—since the various days of the week are not of the same value as regards the volume of trade, and the years and the months do not from year to year include the same number of individual week-days, there can be no genuine statistical comparison between one year and another, while the various subdivisions of the year itself—the half-years, quarters and months—are likewise incapable of comparison."

Thus, barely three hundred years after the establishment of the Gregorian calendar, tendencies towards reform may be observed.

* EDITOR'S NOTE: The verbatim quotation failed to mention the date of the Report cited, and that it was early in the enquiry. Also, the Note did not disclose that this paragraph was soon modified. The viewpoint adopted, and which prevailed until the enquiry was concluded, has accordingly been substituted by the Editor.

Leaving out of consideration the calendar introduced by the Government of the French Republic at the beginning of the Revolution (based on the decimal system and closely resembling the Egyptian calendar), Abbot Marco Mastrofini of Rome proposed a calendar with a year consisting of 364 days beginning on a Sunday with one extra day for an ordinary year and two extra days for leap year.

In 1849 Auguste Comte, on the same principle, proposed a calendar of thirteen months of four weeks each with one or two extra days for ordinary or leap years respectively.

Different variants, very similar to the above-mentioned schemes, have been put forward from time to time. Calendar reform also appeared at international meetings such as the Congresses of the International Chamber of Commerce (1910, 1912, 1914 and 1921), the Liège Conference (1914), the Congresses of the International Astronomical Union (1919 and 1922) which all examined this question.*

The main problems which calendar reform must attempt to solve may be summed up as follows:

1. The beginning of the year.
2. The division of the year into months and the names of months.
3. The length of year.
4. The correspondence between dates and days of the week.
5. The method of fixing leap year.
6. The fixing of holidays.

The World Calendar represents one of the reforms which solves the greatest number of the problems.

(EDITOR'S NOTE: The previous issue of the *Journal of Calendar Reform* published the section herein titled

"III. CALENDAR REFORM UNDER THE LEAGUE OF NATIONS.")

IV. COMMUNICATIONS RECEIVED BY THE UNITED NATIONS

Even before the Peruvian resolution was submitted to the Economic and Social Council, the Secretary-General of the United Nations had already received communications on new drafts for a calendar. These drafts, which were submitted either by individuals or by organizations, have been received from many countries. Furthermore, since the Council considered the question of calendar reform, a number of letters and petitions have been sent to the Department of Social Affairs. Some of them adduce arguments in favor of the proposed reform and others protest against the possible adoption of certain types of calendar. The various

* **EDITOR'S NOTE:** The reader will be interested in knowing the outcome of these meetings and that all favored adoption of a perpetual calendar.

categories of the correspondence may be analyzed separately in the following order:

I. Correspondence in Favor of "The World Calendar"

This correspondence emanates chiefly from The World Calendar Association, which made available to the Secretariat an almost complete collection of the "*Journal of Calendar Reform*," a quarterly review issued by this Association since 1931. Apart from the technical articles relating to calendar questions, this review also contains the resolutions of organizations and statements of individuals of various professions in favor of "The World Calendar." They are too numerous to be quoted in this preliminary note.

II. Correspondence Objecting to the Supplementary Day

Letters of protest against the adoption of "The World Calendar" on 1 January, 1950, have been received from many sources.

(a) Letters from individuals are steadily arriving in the Secretariat. Their main argument is that the system of the supplementary day provided for by "The World Calendar" interferes with the traditional continuity of the seven-day week, and the holy days of the main religions, Protestant, Catholic, Jewish and Mohammedan, would be altered.*

Approximately 1,100 communications have been registered so far.

(b) Petitions from several religious groups have been received, the following in particular:

The Agudas Israel World Organization, which submitted a manuscript entitled "Shall we allow the Bible to be destroyed?"

The Lord's Day Alliance of the United States, which submitted a resolution appealing to the Economic and Social Council and to the General Assembly of the United Nations not to accept "The World Calendar."

The League for Safeguarding the Fixity of the Sabbath and certain United States Adventist Churches, which were of the same opinion.

A group of 91,000 Adventists in South Africa which sent a telegram of protest against the "blank" day.

* EDITOR'S NOTE: It would have been more accurate to state that this unfounded claim is a "contention." The World Calendar has in fact been endorsed by Protestant, Catholic and Mohammedan nations. With the exception only of the Seventh-Day Adventists, some of the Orthodox Jews and a few Fundamentalist Presbyterians, there are no religious groups in opposition.

III. *Schemes for New Calendars*

Nine other proposals for calendars were included in correspondence received. Despite a great variety of type, they nearly all had some similarity with the numerous drafts considered by the League of Nations. The year consisting of thirteen months of twenty-eight days each was again submitted by many people. A year in equal quarters each composed of months of twenty-eight, twenty-eight and thirty-five days successively and a year of seventy-two five-day weeks also appeared. One draft suggests the correction of the leap year for the years 2000, 4000, 6000, 8000, and 10,000 in the Gregorian calendar, with several small alterations in the distribution of the days of the month.

A large number of them did not respect the continuity of the weekly cycles. The documents relating to these proposals have been classified by the Secretariat and may be consulted on request.

In the present position of the question before the Council, there is no urgent necessity for the reproduction of these voluminous archives. Moreover, the announcement that the question of the adoption of a calendar will be considered at the next session of the Council will cause an increase in suggestions and in receipt of information. This note is concerned with information received before 30 June, 1947. A supplementary analysis of the replies received will be added if the nature and the number of documents which are forwarded justify such a step.

V. CONSEQUENCES AND PROBLEMS RELATING TO THE ADOPTION OF "THE WORLD CALENDAR"

The advantages usually emphasized by those in favor of the reform of the calendar are as follows:

Since "The World Calendar" is perpetual, all years would be identical except for the supplementary day in leap years and it, therefore, has all the advantages of a fixed calendar.

Its method of dividing the year into four equal and identical quarters makes it possible to use the quarter as a unit of sub-division, which is very convenient for certain aspects of everyday life.

With the existence of this calendar, statistical surveys, budgetary estimates, financial operations and plans for economic and social organization may be drawn up in a much simpler fashion. Comparisons between any two periods may be drawn with simpler calculations and fixed formulae.

Furthermore, periodic events, such as the convening of a Parliament, can be permanently fixed as to both the date and the day of the week.

The stability of the calendar also makes it possible to contemplate the stabilization of festivals which are at present movable.

It must be noted that this reform would, to a great extent, meet the need of improving the measurement of time from the economic and social point of view.

On the contrary, those opposed to the reform emphasize the following disadvantages amongst others: "The World Calendar" shares with all calendar reforms the disadvantage that the alteration introduced will necessitate certain calculations in order to find equivalents between the new dates and the dates of the former system. Moreover, the fact that in "The World Calendar" Sunday does not always correspond to the real day of the Sabbath may cause practical difficulties for extremely orthodox worshippers of certain denominations. Nevertheless, this disadvantage only affects a very small part of the population of the world. . . . *

On the other hand, the adoption of the draft resolution raises certain procedural problems and practical difficulties. From the international point of view, the reform cannot be adopted to any advantage if a certain number of governments do not introduce it into their legislatures.** In this connection, the House of Representatives of the United States Congress has already received the draft of H.R. 1345, to authorize the President of the United States to take the necessary measures for the adoption of "The World Calendar" on 1 January 1950. If a vote is taken upon this draft, it will facilitate the adoption of the reform throughout the world.

It seems that of all the calendars studied on the international plane, the draft submitted to the Economic and Social Council by the Delegation of Peru is the one which has received most favorable comments.

The draft submitted by the Delegation of Peru (E/291) emphasizes that 1 January 1950 is from many points of view the most suitable date for the transition from the Gregorian calendar to the new calendar, and that the adoption of "The World Calendar" makes it essential that legislative and administrative measures should be taken in time; the draft, therefore, recommends that the Economic and Social Council instruct an *ad hoc* committee to study the proposed reform with a view to making definite proposals and pronouncing on this subject.

VI. DOCUMENTS AND BIBLIOGRAPHY

Documentary material collected by the Secretariat on the question of the reform of the calendar will be placed at the Council's disposal in a

* EDITOR'S NOTE: While unity and agreement by religious groups, as well as others, are desirable, the calendar is secular and only civil authorities have the power to change it. The only opposition recorded is by some numerically insignificant religious organizations. These same groups also opposed instituting Standard Time and establishing the International Date-Line.

** EDITOR'S NOTE: It is questionable that any nations require enabling domestic legislation to adopt The World Calendar. Under the Constitution of the United States a treaty is the supreme law of the land and only the advice and consent of the Senate are necessary for the President to sign a treaty.

room specially reserved for the duration of the session. This material consists of official documents of the League of Nations, various available publications, communications received by the Secretary-General regarding "The World Calendar" and new proposals, and also a relatively complete bibliography on the question of the calendar.



RESOLUTIONS OF ENDORSEMENT

SUPPORTERS of The World Calendar will be interested to know that The World Calendar Association submitted to the Secretary-General of the United Nations a partial but representative list of resolutions of endorsement. Practically all were photostats, and the others were corroborated by official documents. These were placed on exhibit and made available to the delegates.

It was also hoped that the Secretary-General would publish and distribute this list, especially in view of the fact that opposition groups have been listed in the NOTE. To date no such action has been taken.

The list follows:

CHAMBER OF COMMERCE

Federation of Chambers of Commerce of the British Empire
 Association of British Chambers of Commerce
 New York State Chamber of Commerce
 St. Louis Chamber of Commerce
 Coffeyville, Kan., Chamber of Commerce
 Galveston Chamber of Commerce
 London Chamber of Commerce
 National Chamber of Trade (English)
 Board of Trustees, Retail Trade Bureau, Portland, Ore.
 Pittsburgh Chamber of Commerce
 Junior Chamber of Commerce of Pittsburgh
 Danville, Ky., Chamber of Commerce
 Lancaster, Pa., Chamber of Commerce
 Cumberland, Md., Chamber of Commerce
 Chillicothe, Mo., Chamber of Commerce
 Hagerstown, Md., Chamber of Commerce
 Chicago Association of Commerce
 Hibbing, Minn., Chamber of Commerce

Independence, Kan., Chamber of Commerce
 Olean, N. Y., Chamber of Commerce
 Council of Board of Trade, Halifax, Nova Scotia
 Bradford Chamber of Commerce (English)
 Nottingham Chamber of Commerce (English)
 Wolverhampton Chamber of Commerce (English)
 Dewsbury Chamber of Commerce (English)
 Gloucester Chamber of Commerce (English)
 Plymouth Chamber of Commerce (English)
 Winchester Chamber of Commerce (English)
 Ipswich Chamber of Commerce (English)
 Stroud Chamber of Commerce (English)
 Woolwich Chamber of Commerce (English)
 Luton Chamber of Commerce (English)
 Mansfield Chamber of Commerce (English)
 Reading Chamber of Commerce (English)
 Londonderry Chamber of Commerce (Irish)
 Hitchin Chamber of Commerce (English)
 Chester Chamber of Commerce (English)
 North Wales Chamber of Commerce (British)
 Austrian Board of Trade
 Pasadena, Cal., Chamber of Commerce

SCIENCE

International Astronomical Union, Commission 32
 American Academy of Arts and Sciences
 Committee for Maritime Meteorology
 Seventh American Scientific Congress, Mexico City
 American Philosophical Society
 American Association for the Advancement of Science
 Mathematical Association of America
 South Carolina Academy of Science
 East Bay Astronomical Assn., Oakland, Cal.
 Barcelona Academy of Arts and Sciences, Spain
 Faculty of the School of Industrial Engineers of Barcelona, Spain
 Ninth General Chilean Scientific Congress, Valparaiso
 Institute of Radio Engineers, Board of Directors, N.Y.C.
 Academy of Science of St. Louis
 Astronomical Society of Decatur, Ill.
 Astronomical Society of Spain and America
 American Psychological Association
 Assn. of Professional Engineers of the Province of New Brunswick
 Engineering Profession in British Columbia
 Australian Branch of the Institute of Physics
 Detroit Astronomical Society
 National Institute of Planning and Social Reform of the Republic of Cuba
 Toronto Centre, Royal Astronomical Society of Canada
 Winnipeg Centre, Royal Astronomical Society of Canada
 Edmonton Centre, Royal Astronomical Society of Canada
 Royal Astronomical Society of Canada
 Montreal Centre, Royal Astronomical Society of Canada
 Royal Society of Queensland, Australia
 Wellington Branch, Royal Society of New Zealand

Royal Society of New South Wales, Australia
 Australian National Research Council
 Amateur Astronomers Association of Pittsburgh

EDUCATION

World Federation of Education Associations
 National Education Association
 National Association of Education of Chile
 Assn. of Teachers of Mathematics in New England
 Texas State Teachers Association
 National Council of Geography Teachers
 Faculty Science Club, W. Mich. Coll., Kalamazoo

BUSINESS

International Affiliation of Sales and Advertising Clubs
 American Institute of Accountants
 American Industrial Bankers Association
 Canadian Retail Federation
 California Drycleaner's Association
 Milwaukee Society of Accountants
 Pennsylvania Retailers Association, Lancaster
 Manufacturers' Assn. of Delaware County, Chester, Pa.
 Kansas City Branch, Railway Mail Association, Mo.
 Mexican Hotel Association
 Industrial Association of Austria
 Newspaper Advertising Executives Association, Inc.
 Johnstown, Pa., Advertising Club
 Associated Employers of Oregon
 Family Finance Corp. and Security Bankers Management Corp., Wilmington, Del.
 Book Dealers Association of Austria
 Merchants Association of Austria
 National Cooperative Organization of Small Trades (Austrian)
 Association of the Restaurant and Hotel Trades (Austrian)
 Controllers' Congress, National Retail Dry Goods Association
 Quality Bakers of America Cooperative: Office Managers and Accountants

RELIGION

Council of the Universal Christian Council for Life and Work, Chamby, Switzerland
 General Convention of the Protestant Episcopal Church
 College of Bishops of the Methodist Episcopal Church South
 Reformed Church in America
 American Lutheran Church
 Evangelical Lutheran Synod of Missouri, Ohio and other States
 Council of Bishops of the Methodist Church
 Suffolk North Assn. of Ministers, Mass.
 Olivet Presbyterian Church, Harrisburg, Pa.
 Congregation of First Unitarian Church, Louisville, Ky.

LABOR

American States Members of International Labor Organization
 Labor Conference, Santiago, Chile, 1936
 Canadian Congress of Labour

FRATERNAL

Presidents' Section of the National Fraternal Congress of America
 Fraternal Congress of New York
 Fraternal Congress of Maryland and the District of Columbia
 Annual Report of the Secretary-Treasurer of the Canadian Fraternal Congress
 Washington State Fraternal Congress
 Slovene National Benefit Society

MISCELLANEOUS

General Federation of Women's Clubs
 National Federation of Business and Professional Women's Clubs, Inc.
 Women's City and County Club, Inc., Poughkeepsie, N. Y.
 National Story League
 Peoples Mandate Committee for Inter-American Peace and Cooperation
 Penryth Club, Toronto, Canada
 Amateur Athletic Union of the United States
 National Theatre Conference
 Agricultural History Society, Washington, D. C.
 Hibbing, Minn., Kiwanis Club
 Williamsburg (Brooklyn) Kiwanis Club
 Ely, Minn., Kiwanis Club
 West Chester, Pa., Lions Club
 Ventura, Cal., Lions Club
 Ephraim, Utah, Lions Club
 Sandersville, Ga., Lions Club
 Wooster, Ohio, Lions Club
 Hayward, Cal., Lions Club
 Port Neches, Tex., Lions Club
 Camden, Tenn., Lions Club
 Pittsburgh, Pa., Lions Club
 Palatine, Ill., Lions Club
 Cedar Falls, Iowa, Lions Club
 Bovey, Minn., Lions Club
 Districts 29-V—29-W (West Virginia), Lions International
 Chelsea, Mass., Rotary Club
 Devils Lake, N.D., Rotary Club
 Yoakum, Tex., Rotary Club
 Johnstown, Pa., Rotary Club
 Dover, N. J., Rotary Club
 Akron, Ohio, Toastmasters Club
 Jacksonville, Ill., Toastmasters Club
 National Council for the Promotion of Father's Day, N.Y.C.
 Humanist Society of Friends, Los Angeles
 Portales, N.M., 20-30 Club
 Professional Writers Club, Washington, D. C.
 Georgia State Nurses' Association
 South African Anti-Waste and Conservation Organisation
 American Association of Scientific Workers

and others

SENATE BILL INTRODUCED AND PUBLIC HEARINGS REPORTED BY HOUSE

By Westy Egmont

Bill identical to House Resolution 1345 introduced in Senate on Saturday, 26 July, 1947, by Senator Elbert Duncan Thomas, Democrat, of Utah, a member of the Senate Foreign Relations Committee. House Committee on Foreign Affairs reported to be planning to hold public hearings.

A BILL for adoption of The World Calendar was introduced in the United States Senate on 26 July, 1947. In form and substance this resolution was identical with the bill introduced in the House of Representatives of the United States Congress on 27 January, 1947. House Resolution 1345 was referred to the Committee on Foreign Affairs and Senate Resolution 1755 to the Foreign Relations Committee.

The Honorable John Kee, Democrat, Congressman from West Virginia, with a supporting speech by Karl Mundt, Republican, Congressman from South Dakota, had introduced the bill in the House. Shortly thereafter The World Calendar Association was advised by the Honorable John Kee that hearings would probably be held. The Association was requested by members of the Committee to cooperate by arranging a representative and informative presentation, but limiting its length and eliminating repetitive matter. Congressman Kee indicated that he had been flooded with correspondence on the subject, as did other members of the Committee.

The Association ascertained the identity of those who wished to testify for The World Calendar, suggested very short statements to conserve the time of Congressional members and made an effort to persuade prospective witnesses to avoid duplication of the statements of others. A reasonably comprehensive *Bibliography*, requested by the United Nations, was submitted for the use of the Committee to facilitate Congressional research and study.

From time to time there have been reports that hearings on the bill might be held in the near future. As this issue goes to press the date has still not been set, but the Association has again been advised such action may still be taken during the recess of Congress. Following a conference at the White House, called by the President, the Chairmen of the House and Senate Committees on foreign matters announced that they were call-

ing meetings by their Committees to start 10 November, 1947. This offers a possibility of action in the near future.

Insofar as the Congress has failed to date to act on the proposal, this should not be construed as indicating a lack of public or Congressional interest.

A recent issue of a publication called *Resolved* devoted its front page to the failure of Congress to act "on almost every piece of legislation supported by citizen-groups. . . . Six victims of Congressional inaction" were listed as follows:

"Taft-Ellender-Wagner Housing Bill: supported by 40 national organizations with about 80,000,000 members; opposed by 5 real estate, building and loan organizations with about 100,000 members.

"Federal Aid to Education: supported by 44 lay and educational organizations; opposed by 2 management and 3 citizen-groups.

"National Health Insurance and Public Health Bill: supported by 45 national business, labor, farm, professional and citizen-organizations including 5 medical and dental associations; opposed by 1 medical and 1 hospital association.

"Federal Department of Health Education and Security: supported by 27 citizen-groups and agencies serving medical profession; opposed by American Medical Association and 2 other professional groups.

"National Act Against Discrimination: supported by 84 national organizations including major labor and church groups; opposition mainly under cover; openly opposed by white supremacy fraternal orders.

"Displaced Persons Bill: supported by 119 national farm, labor and citizen-organizations; opposed by 2."

Shortly after Congress convened, the Committee on Foreign Affairs found itself overwhelmed with many national and world-wide problems of crucial importance. These were clearly the reason for Committee procrastination on The World Calendar bill. By reason of the fact that only negligible opposition has developed since the proposal was first advanced in the middle of last year, and approval has been widespread, the advocates of calendar reform and The World Calendar have reason to expect the Congress to act soon and favorably.

At the United Nations the hope of early Congressional hearings was expressed by the delegates of many nations, including the representatives of the United States. In a world struggling with highly controversial issues and with Congress divided by sharp disagreements on many, The World Calendar offers a refreshing contrast and this in itself constitutes a reason for proceeding as soon as possible.

PUBLIC OPINION AND THE WORLD CALENDAR

Opinion as to the desirability of adopting The World Calendar has been tested for many years and in many nations. The Association has compiled and published a comprehensive index. The Foreword is here republished.

PUBLIC opinion on the adoption of The World Calendar has been tested and registered over a period of many years, especially since 1930. This has been done by the League of Nations, national governments, national governmental and quasi-official committees, national and international private organizations and the press and radio.

The result is practically unanimous agreement on the desirability of reforming the Gregorian calendar and world-wide adoption of The World Calendar.

Methods of ascertaining and gauging public opinion are many and various criteria may be used for purposes of evaluation.

Formal resolutions of endorsement by big organizations, by small groups, by international, and national private groups, by scientific bodies, educational organizations, and business associations, and by national governments in concert with international agencies, and apart from international organizations, are obviously of utmost value in appraising the opinion of the public concerning a proposal for international action.

Voluntary individual expressions of intelligent and informed opinion by leaders in a wide variety of fields throughout the world carry weight.

Study, debate and action by international organizations, governmental, quasi-governmental and private, are extremely useful.

Opinion polls are a testing device which provide a means to ascertain the preponderance of public opinion.

Newspaper, radio and magazine news, editorials and feature stories, and also books and booklets reflect and express public opinion.

The World Calendar Association here reproduces a very small fraction of the material in its files, which it has grouped for convenience under four headings:

1. United Nations and Endorsements
2. League of Nations
3. Polls
4. Publications

Many of the letters, articles and other statements quoted herein are succinct summaries of extended statements, some of which are hundreds of words long. The originals are available at The World Calendar Association to the United Nations and governments. Knowing that the excerpts mirror the general attitude of each organization and individual, and that busy persons find difficulty in reading voluminous records, we have devised this means to enable a quick appraisal of a mountain of material.

These indices of opinion in many nations may be regarded as rather heavily weighted in favor of the American viewpoint. There are several reasons. Many records of the English affiliate of The World Calendar Association, formerly known as the Rational Calendar Association, England, were destroyed during World War II. The records of some other affiliates have been misplaced, lost or are otherwise not presently available to the international headquarters.

Granting there is considerable apathy in some quarters in regard to calendar revision, the reasons are various. Calendar reform has abstract, abstruse and complex elements. It is long-range and world-wide in scope. In past history calendar changes were made solely by monarchs and religious leaders, and consequently this subject has no democratic and popular tradition. Reform of the calendar today depends upon enlightened leaders of science, business, governments, education and others.

Just as the establishing of Standard Time and the International Date Line within the last century could not be accomplished by monarchs and high priests, and did not result from an aroused and militant mandate of the public at large, rather having been primarily conceived by scientists and scholars, demanded by practical leaders of business and carried out by governmental officials, so the adoption of The World Calendar must be studied and made operative by leaders of government in accordance with scientific and scholarly endorsement, and in response to the considered opinion of outstanding private leaders in a wide variety of fields.

Public opinion will support those that engage in this undertaking that will benefit all humanity.

CALENDAR CONTRAST CARDS

CALENDAR Contrast Cards for the year 1948 are now available. A supply will be gladly provided free. Write the Association for them. Kindly state how many you need. These are interesting and useful enclosures for Christmas cards.

TIME— SIDEREAL AND SOLAR

By H. Boyd Brydon

The Journal of the Royal Astronomical Society of Canada, in the July-August, 1947, issue, published this article. It is reprinted as a very clear explanation.

A COMMON, perhaps the chief, stumbling block one meets when beginning the study of astronomy is the difference between sidereal time and solar or civil time, between a sidereal day and a civil day. The very simplicity of the difference makes its explanation the most difficult for the beginner to grasp.

The dictionary defines a day as "the time taken by the earth to make one complete turn on its axis." But how shall we mark when the turn begins and ends? If we mark it by the sun a day is the interval between successive crossings of the meridian by the sun. That is a solar day. If we use a star then a day is the interval between successive crossings of the meridian by that star. That is a sidereal day and observation shows that it is nearly 4 minutes shorter than a solar day; a good illustration of the necessity of understanding what we mean when we start to argue.

The result is that in a year there are, neglecting fractions, 366 sidereal days but only 365 solar days. What causes the difference?

It arises from a combination of circumstances. First: One complete rotation of the earth on its axis is completed each successive time any certain meridian, our own for instance, passes the vernal equinox point. This point is so immeasurably distant that as seen from it the earth's orbit may be considered merely as another point. The result is that straight lines drawn to the vernal equinox point from any and all parts in the orbit may be considered as though they were drawn from a single point.

Since there are 360 degrees in an orbit and, again neglecting fractions, 365 ordinary days in a calendar year, the earth moves round its orbit at an average rate of $360/365$ or nearly 1 degree a day. It follows that the same meridian cannot face the sun again until the earth has rotated on its axis by just that much more than a complete turn which requires about 4 minutes longer.

Many more or less successful attempts to render this difference understood by a diagram or illustration by reference to familiar things have been presented. One of the latter which so far as the writer is aware has not been published is based upon the use of an ordinary watch. Being a sort of working model of the two kinds of time it has the advantage that the student can experiment with it by himself.

First: release the hands of the watch from the clock-work by the hand-set knob so that they can be turned freely and set them at 12 o'clock. Next: imagine that the center of the dial is the end of the earth's axis, the minute hand is a meridian and the direction from the center to 12 o'clock points toward the vernal equinox. Clearly then when the hands are turned, every successive time the minute hand, our meridian, passes the 12 o'clock point it marks the completion of one complete turn: a sidereal day.

Now for a solar day. Imagine that the hour hand is the earth, the circle of the hours is its orbit and the center of the dial is the sun. Then as the minute hand, our meridian, passes over the hour hand it is in line with the sun and represents the moment of noon by solar time. As the interval from one noon to the next is one solar day each passage of the minute hand over the hour hand marks the completion of a solar day. The additional distance past the 12 o'clock point that the minute hand must turn to reach successive positions of the hour hand represents the greater length of a solar day compared with a sidereal day. As the hour hand, the earth, travels round its orbit the total of these individual differences increases. We have now to show that in the whole orbit or a calendar year this total difference amounts to one day.

Beginning with the hands set at 12 o'clock continue to turn them, clockwise for convenience, until they both reach 12 o'clock again, noting, carefully, for the count becomes a little confusing toward the end of the circuit, the numbers of times the minute hand passes the 12 o'clock point and the hour hand respectively. It will be found that it has passed the 12 o'clock point 13 times and the hour hand, the earth, only 12 times, thus in the course of a complete revolution round the orbit or a calendar year, gaining one sidereal day over the number of civil or solar days.

In this working model 12 points round the orbit have been taken for the position of the hour hand, but the precise number is of no consequence. In passing round the orbit the difference is always one. It arises, of course, because one of our reference points, the vernal equinox, is outside the orbit and the other, the sun, is within it.

We live by solar time or rather by standard time which is simply a convenient modification of it for business purposes. But the stars move

by sidereal time and our watch experiment has shown that in the course of a year 0-hours by sidereal time, which is the same as 0-hours of right ascension, occurs at all hours of the day and night. Furthermore any certain star or constellation can be seen only when it is above the horizon at night-time.

On some star maps, as for instance those available from the headquarters of this Society, the date and solar time are given corresponding to the sidereal time when a constellation is on or near the meridian. Lacking such maps some way is needed of determining approximately the sidereal time corresponding to any certain day, hour and minute of civil time so that by comparing its right ascension therewith we may know whether the star can be seen at the time specified.

Fortunately there is a simple rule. It is based on the facts that at the vernal equinox, about 21 March, 0-hours by sidereal time occurs at noon by local mean solar time, and that as a sidereal day is nearly four minutes shorter than a solar day, 0-hours by sidereal time occurs about four minutes earlier on each succeeding day. Here is the rule:

To obtain the approximate sidereal time corresponding to any specified day, hour and minute add together two hours for each complete month counting from noon on the 22d day of March to noon on the last 22d day before the specified date, four minutes for each complete day from noon on that 22d day to noon on the specified day and the hours and minutes from that noon to the time specified. If the sum exceeds 24 hours deduct 24 hours from it; there are only 24 hours in a day. The result, within a few minutes depending principally on one's difference of longitude from the standard time meridian, will be the approximate sidereal time sought. For example:

Required the approximate sidereal time on 15 August, 9:00 p.m.

	h.	m.
22 March—22 July: 4 mo. x 2.....	8	00
22 July—15 Aug. noon: 24 d x 4.....	1	36
Noon to 9:00 p.m.	9	00

Approximate sidereal time required..... 18 36

The rule can be worked equally well backward to find the approximate civil time when a specified star will be on the meridian at say 9:00 p. m. For example:

When will Antares, R.A. 16h 26m, be on the meridian about 9:00 p.m.? The problem is to find when one's sidereal time will be 16h 26m at 9:00 p.m.

Deduct 9 hours, leaving sidereal time at noon on the day required 7h 26m. Dividing by 2 gives 3 complete months from 22 March or 22 June and leaves 1h 26m. Dividing 1h 26m by 4 gives 18 days plus 2 minutes. Whence the approximate civil time when Antares will be on the meridian is July 13d 9h 02m p.m.

JUST HOW SMART ARE WE?

Under this heading, the Daily News of New York City published an editorial on 2 September, 1947. The greater part of it is republished below.

DR. LIN YUTANG, of whom it might be said that China would have few troubles if all present-day Chinese were like him, has recently added to the long list of his achievements by inventing a Chinese typewriter.

The machine, weighing only about 50 pounds and having but 80 keys, can type about 2,000 words in an hour, whereas it takes a Chinese secretary one working day to write 2,000 words by hand.

When you consider that there are 43,000 symbols—letters, so to speak—in the Chinese language, you get a rough idea of the magnitude of Dr. Lin's triumph in inventing this typewriter; a job, by the way, at which he has been working off and on for 30 years.

Of course, a nice, toplofty American retort to all this would be that the Chinese could increase their own efficiency and cancel any need for the Lin typewriter by adopting a simple, phonetic alphabet similar to ours.

Before we wax hoity-toity in that way, however, we might ask ourselves just how smart and efficient we are in some other respects.

For instance, we are still making do with the Gregorian calendar.

This venerable device was developed from the Julian calendar under the direction of Pope Gregory XIII (1502-85), by some of the best scientific and mathematical brains of those times.

But science marches on—from blessings like the early Colt revolver, for example, which with luck could take six persons in one operation, to the early atom bomb, which could take 85,000 to 100,000.

Science has also marched on in the matter of calendars. There is now available to us, if we want to adopt it, the simplified, efficient and scientific World Calendar.

The plan of The World Calendar more or less explains itself, and is worth careful examination. As you can see, the first month in each quarter of the year would have 31 days; the other two, 30 each.

This proposed calendar has so many obvious advantages that it seems unnecessary to go into them here. It is the simplest reformed calendar we've yet seen.

STATEMENTS BY CHURCH LEADERS

This compilation of excerpts from the statements by religious leaders lists their position at the time of their pronouncement.

HAMILCAR ALIVISATOS,
D.D.,
Professor, University of
Athens, Greece.

Regarding the Calendar reform, on which I personally look very favorably, I have the pleasure of informing you that the respective department of the Ministry of Foreign Affairs (League of Nations Department) has passed upon the question with the intention of founding a special Committee to deal with it . . . It is not necessary to say that if I shall be myself on the committee I shall try my best for the promotion of the idea of the reform calendar.

MOTHER ALOYSIUS,
former President, Fontbonne
College, St. Louis, Missouri.

Calendar reform will be a blessing to educational institutions and it will be worth-while to call an international convention to consider the adoption of it.

GEORGE S. ARUNDALE,
President, The Theosophical
Society, Adyar, Madras,
India.

I am strongly in favor of The World Calendar.

ATHENAGORAS,
Archbishop and Metropolitan,
Greek Orthodox Church
of North and South Amer-
icas, Astoria, New York.

I take this opportunity to extend to you my whole-hearted congratulations for your great work in the Calendar Reform movement.

**ALFRED CARDINAL
BAUDRILLART,**
former Rector of the Catho-
lic Institute of Paris.

The problem is not new. It has existed since the origin of the Church. . . . A few years ago, Pius XI was inclined to admit the proposition. This question is, besides, absolutely free from the dogmatic point of view . . . the Pope is of the opinion that the thing can be done and that there would be great advantages.

GEORGE A. BEECHER,
Protestant Episcopal Bishop
of Western Nebraska.

I will cooperate with the members of The World Calendar Association in every way I can.

GEORGE K. A. BELL,
The Lord Bishop of Chiches-
ter, England.

I am very glad all has gone well with regard to the resolution on Calendar Reform.

- CHARLES BIELER, D.D.,**
Emeritus Professor of Christian Ethics, United Theological College of Canada.
- The alternative plan seems now to have general favor. . . . It is conservative, practical and I hope it will be accepted.
- WILLIAM ADAMS BROWN,**
President, American Section, Universal Christian Council; Professor Emeritus, Union Theological Seminary, New York City.
- I am glad, indeed, to have my name associated with something in which I believe so much.
- S. PARKES CADMAN,**
former President of the Federal Council of the Churches of Christ in America.
- It has vast importance, not only for religion but for the whole world and world's trade and commerce.
- CHAUVE-BERTRAND**
Abbe (Roman Catholic), Nievre, France.
- Reform will not be truly serious unless it is able to establish a perpetual calendar. . . . The plan of preserving the 12-month year, which has always had priority, becomes more and more obvious as a necessity.
- LOWELL H. COATE,**
Director of the Humanist Society of Friends, Los Angeles, California.
- We have officially endorsed The World Calendar.
- PHILIP COOK,**
Bishop, former President, National Council, Protestant Episcopal Church.
- I am indeed interested in calendar reform.
- ABRAHAM CRONBACH,**
D.D., Professor, Hebrew Union College, Cincinnati, Ohio.
- I am with you in the matter of calendar alteration. . . . When you come right down to it, what the Orthodox Jew wants is not so much one day of rest in seven as a day of intervals with which the Deity will be satisfied. With increasing obliviousness to tradition Jews will eventually be prepared for calendar change.
- EDWARD M. CROSS,**
Protestant Episcopal Bishop of Spokane, Washington.
- The World Calendar proposal seems by far the most practical.
- MOTHER C. C. DAMMAN**
former President, Manhattanville (Roman Catholic) College, New York, N. Y.
- Adoption of The World Calendar would be extremely helpful in arranging annual school calendars.

EPHRAIM FRISCH,
Rabbi, San Antonio, Texas.

If the world is going to be benefited by the change of the calendar as proposed, then we Jewish people of the Reform wing at least ought not to stand in the way.

MOHANDAS GANDHI,
India.

It would be a splendid thing if our 350,000,000 people could have a single national unified calendar. As most of the Indian calendars are arranged on a twelve-month basis, it would obviously be easier to meet on this common ground. I am in favor of such a calendar. I am in favor of a standardized calendar for the whole world. . . . I am always ready to endorse any honest movement which will help to unify the peoples of the world.

D. GERMANOS,
Archbishop, Metropolitan of
Thyateira; Exarch of Western
and Northern Europe.

The 12-month equal-quarter plan, which the representative of the Eastern Orthodox Church has supported in many international conferences, seems an entirely logical and effective way of remedying every serious defect of the present calendar. And from the viewpoint of the earnest churchman, it has important implications which go far beyond its merits as an improved civil and business measuring rod. For the calendar has a religious meaning, too, and a revised calendar will inevitably have an effect in unifying and stabilizing the church calendars of all the great communions. The significance of this movement, in its bearing on church unity, is what has won for it the attention and support of church leaders.

BENJAMIN F. P. IVINS,
Protestant Episcopal Bishop
of Milwaukee, Wisconsin.

I am convinced the new calendar will come but wish its coming could be expedited.

THOMAS JENKINS,
former Protestant Episcopal
Missionary Bishop of Nevada.

The World Calendar would seem to accomplish in a simple and understandable manner all that anyone might reasonably desire in the way of reform.

A. B. KALIAN,
Archbishop, Syrian Church,
Baghdad, Iraq.

Hoping that your expectation of calendar reform will be fulfilled.

STEPHEN E. KEELER, D.D.,
Protestant Episcopal Bishop
Coadjutor of Minnesota.

I very much hope that the strength of the Episcopal Church may be thrown behind this movement for calendar reform . . . all best wishes for the movement.

SAMUEL KOCH,
Rabbi, Seattle, Washington.

The adjusted calendar as presented seems acceptable.

COSMO GORDON LANG,
The Lord Archbishop of Canterbury.

I am bound to say I have found it impossible to resist the plea for reform in this matter. . . . It would be a real misfortune if this matter were allowed to drift.

EDWIN F. LEE,
Methodist Episcopal Bishop,
Malaysia and the Philippines.

I have read the Resolution on Calendar Reform dated Atlantic City, October 19, 1934, and find it most interesting. Please accept my best wishes for your success in this enterprise.

HENRY SMITH LEIPER, D.D.,
Executive Secretary, American Section, Universal Christian Council for Life and Work.

I hope it (The World Calendar) will have the attention it deserves.

LEONTIOS,
Metropolitan of Paphos Locum Tenens of the Archiepiscopal Throne of Cyprus.

We congratulate you with all our heart for your kind and untiring efforts on behalf of the useful reform of the calendar, wishing that the Lord grant them complete success, and health and every blessing to you and to your co-workers.

ARTHUR S. LLOYD,
Protestant Episcopal Suffragan Bishop of New York.

It seems to me that it is an entirely practical proposition.

WILLIAM T. MANNING,
Protestant Episcopal Bishop of New York.

I shall be glad to have you add my name to the American Advisory Board of The World Calendar Association. I want to do anything I can to aid in this truly important undertaking.

EDUARDO MARTINEZ DALMAU,
Roman Catholic Bishop of the Diocese of Cienfuegos, Cuba.

I should like Your Reverence, as Cuban representative of the Association for the Reform of the Calendar, to communicate to them that I give my name to the statement that this Calendar (The World Calendar) seems to me to be more practical than the one used at present.

T. ALBERT MOORE,
former Moderator, United Church of Canada.

I am confident The World Calendar, when adopted generally, will be appreciated for its many worthy and practical benefits.

JULIAN MORGENSTERN,
President, The Hebrew Union
College, Cincinnati, Ohio.

. . . there were three different calendars employed at different times in ancient Israel, and that the transition from the one system of designating months to the second system, and from this in turn to a third system, implied two revisions of the calendar, each in all likelihood of a thorough-going nature. . . . Of course, should our Government ever officially recognize the civil World Calendar, American Jews would accept this calendar readily and employ it for civil purposes. It would then become their responsibility to find a way to harmonize their traditional religious observances with the new and now official calendar. They have faced this problem before and found a solution. And I have no doubt that they could do it again if the need arises.

J. L. NUELSEN,
former Methodist Bishop of
the Zurich area, Switzerland.

Your endeavors, I trust, will eventuate in full success.

G. ASHTON OLDHAM,
Protestant Episcopal Bishop
of Albany, New York.

You are doing a great work in this cause, and I wish you every success.

SWAMI OMKAR,
Minister, East Godavari Dt.,
South India.

It is easy to see how happy this arrangement of The World Calendar is for all humanity—regardless of religion or race or nation. It is another step toward the universal brotherhood of man. The World Calendar has therefore my wholehearted approval and support . . . Of such movements as this reform of the calendar comes peace—that abiding peace in the material, as well as in the spiritual world, which passeth understanding and comes of God.

G. BROMLEY OXNAM,
Methodist Bishop of Boston,
Mass.; President, Federal
Council of the Churches of
Christ in America.

It is hard for me to understand why it is necessary to spend so many years in educating people to the place wherein they are willing to make those adjustments that common sense and self-interest demand. There are many good reasons for adopting The World Calendar you propose. I do not know reasons that would justify its rejection.

JAMES DeWOLF PERRY,
Bishop of Rhode Island,
Providence; former Presiding
Bishop of the Protestant
Episcopal Church.

You are to be congratulated upon your progress

POPE PIUS X,
Vatican City.

The Holy See declared that it made no objection but invited the civil powers to enter into an accord on the reform of the civil calendar, after which it would willingly grant its collaboration in so far as the matter affected religious feasts.

CHARLES FRANCIS POTTER,
Founder of the Humanist
Society of New York.

I heartily approve this necessary change.

ALFRED H. RABE, S.M.,
former President, St. Mary's
University of San Antonio,
Texas.

I have since some time been interested in the calendar reform problem, and I have resolved to talk on the subject to our students and to civic clubs of the city.

A. REY,
President, Synod of Protestant
Evangelical Churches of
Belgium.

We are of the opinion that a new calendar must keep the division of 12 months and that the year should be divided into four identical quarters. We shall do all that is possible to have Belgium favor this plan at Geneva.

**CANUTO JOSE REYES Y
BALLADARES,**
Roman Catholic Monsignor,
Granada, Nicaragua.

We are very interested in the plan of the Calendar reform. Sincerely we congratulate you for your enterprise.

E. G. RICHARDSON,
Methodist Episcopal Bishop
of Philadelphia (retired).

I believe that your entire reformed calendar would be a good thing.

LEOPOLDO RUIZ Y FLORES,
former Roman Catholic
Archbishop of Morelia, Mexico;
Primate of Mexico.

I think it is a step for promoting a sane cosmopolitan union between all the nations of the world.

J. SANTILLANA, S.J.,
Professor of Mathematics,
Colegio del Salvador, Buenos
Aires, Argentina; author of
book on calendar reform.

The PP. Jesuits, directors of the great observatories of the world, are energetic defenders of the Reform, as I believe must be all those who study the question with mediocre intelligence and sincerity.

SEVERIANO SAINZ,
former Roman Catholic
Bishop of Matanzas, Cuba.

In the division of the months, I do prefer to keep the existing arrangement of 12 months with the variations proposed by The World Calendar, four months of 31 days and the rest 30 days.

ELMER NICHOLAS
SCHMUCK,
former Protestant Episcopal
Bishop of Wyoming.

. . . suggests a national 12-month plan and urges its adoption upon the governments of the world.

E. C. SEAMAN,
Protestant Episcopal Bishop
of North Texas.

I favor the 12-month equal-quarter plan.

EDGAR SISKIN,
Rabbi, New Haven, Con-
necticut.

I am in favor of any kind of intelligent progressive calendar reform. The question of tradition doesn't particularly trouble me, especially when balanced against the social benefit which might conceivably derive from some effective calendar reform.

GEORGE SOLOMON,
Rabbi, Savannah, Georgia.

I am heartily in favor of calendar revision and see no reason why Liberal Rabbis (and for that matter, Orthodox as well) should not approve. The calendar has undergone change from time to time, not always wisely. This proposal is considered as sensible and affects no principles.

SISTO SOSA,
Roman Catholic Bishop of
Cumana, Venezuela.

The project has all my sympathy, and if all the Venezuelan bishops are of the same opinion, it will give me the greatest pleasure to bring the matter to the attention of the Vatican.

ERNEST MILMORE STIRES,
former Bishop of the Protes-
tant Episcopal Diocese of
Long Island.

It has everything to commend it, and I do not know of any reasonable objection which can be advanced against it. It is bound to win.

C. C. STOUGHTON,
President, Wagner Lutheran
College, New York, New
York.

I have long been interested in this reform and shall do all I can to help its accomplishment.

MARTIN M. WEITZ,
Rabbi, Kenosha, Wisconsin.

Indeed a goal worthy of enshrinement in the scope and spirit of modern man and his modern "time-piece"—The World Calendar.

OBITUARY NOTES

DR. MARY E. WOOLLEY is dead. Her life ended on 5 September, 1947, at Westport, New York, at the age of 84.

She had many scholastic attainments, teaching among other subjects, biblical history, literature, mathematics, philosophy, Latin, Greek and Hebrew. For 37 years she was the President of Mount Holyoke College. She was a crusader for equal educational opportunities for women and instilling in them a livelier sense of responsibility toward the obligations of citizenship.

Mary Woolley was the first woman delegate to an international disarmament conference, the Geneva Conference of 1932, by appointment of President Herbert Hoover. She became one of the outstanding advocates of world peace, both after World Wars I and II. She organized the Committee for the Participation of Women in Post-War Planning and in 1944 served as Chairman of the Peoples Mandate Committee which President Franklin D. Roosevelt urged to bring all American nations together in organizing world peace.

In 1932 she was named in a nation-wide poll "one of the twelve greatest American women."

Her life is ended but her influence and services will—and must—endure.

She was a member for many years of the United States Advisory Committee of The World Calendar Association, Inc. Her departure is deeply mourned.

JULIUS F. STONE, former President of the Ohio State University Research Foundation and Chairman of the Board of the Seagrave Corporation, was one of the earliest supporters of The World Calendar Association, Inc., and a member of the United States Advisory Committee. His death on 25 July, 1947, at the age of 92, was a great loss to the movement for calendar reform.

Immediately after he died, close friends and associates received a card with an engraved candle burned out and the caption: "For date see postmark on envelope." He had left instructions that the cards be mailed after his death.

Inside was a verse he had written as a cheery farewell, as follows:

"With a ripple of merry laughter,
A smile and a gay goodbye
To all who made life worth living
Back to the dust go I."

In death, as in life, his personality enriched the lives of his fellow men.

CURRENT PRESS COMMENT

A Progressive Step

Lewisburg (Pa.) Journal

24 July, 1947

THE advantages of The World Calendar are numerous. The uniformity in the number of workdays would do much to stabilize employment and lessen greatly the amount of work entering into the making up of payrolls, etc. In addition, The World Calendar would fix the various holidays that under the present system do so much to disrupt employment and trade.

Two bills are now before Congress for action and the United Nations is reported vitally interested in the adoption of The World Calendar. We believe the great majority of the citizens of the United States will approve The World Calendar, and we're certain that if adopted the uniformity resulting from such a calendar will be soon appreciated by the minority. Although that which we have written may not appeal to the opponents, we believe sincerely that the adoption of a uniform calendar would be a progressive step.

(Purely personal and a bit on the humorous side: Perhaps the adoption of The World Calendar will enable us to overcome the bad habit of mixing our datelines in this newspaper).

Those Shifting Holidays

Norman (Okla.) Transcript

21 May, 1947

EITHER the public or business or both are seriously inconvenienced when holidays come on Saturday, the big shopping day of the week. The banks are closed, even if some business houses stay open to serve their customers.

The skipping about of holidays to different days of the week would be ended, however, if the world would just employ enough common sense to modernize the calendar. It would be easy to change to The World Calendar, under which there

would be a definite pattern for every month and every quarter of the year.

Briefly summarized the major benefits that will be achieved by adoption of The World Calendar are as follows:

First, it will fix the year in perpetuity, in accordance with the scientific length of the year and retain the 12 months made familiar by the Gregorian calendar. Second, it will retain and equalize the half-years and make them comparable. Third, it will reapportion the number of days in the months more equally. Fourth, it will retain and equalize the quarters of the year. Fifth, it will provide a uniform grouping of the months in a pattern and sequence of days in each quarter of the year. Sixth, it will provide 13 complete weeks within each quarter and group these weeks uniformly. Seventh, it will establish an equal working month of 26 business days plus Sundays for all the months, and will reduce the inequality between the months from a maximum of 3 days to 1 day. Eighth, it will fix holidays so they will always fall on the same day and date. Ninth, it will enable each year, half-year and quarter to begin on Sunday, which is retained as the first day of the week, and to end on Saturday, which is retained as the last day of the week. Tenth, it will for the first time in history give man a Year-End World Holiday set apart from all other days and appropriately dedicated to world peace and friendship, and also a midyear World Holiday every four years, in leap years.

A Live Issue Internationally

Orillia (Can.) Packet and Times

3 July, 1947

IT is interesting and encouraging to learn that the United States Congress is again going seriously into the question of calendar reform, and that there is therefore a prospect that The World Calendar may be brought into effect in 1950, when the 1st of January falls on Sunday.

EXCERPTS AND REVIEWS

Reforming the Calendar

By CHARLES HERBERT HUESTIS

From the Star, Toronto, Canada, 24 June 1947

I SEE by the papers that the question of taking the kinks out of the calendar, which has served the world rather haltingly for centuries, is being mooted once more so that we may turn from the matter of reforming capitalism to reforming another much more ancient and tougher institution.

This movement was initiated in the last century and taken over by the League of Nations in 1923, and a study of the question was put into the hands of a special committee which reported favorably in 1931. It was hoped that a new calendar designed to iron out the inequalities of the old one would be inaugurated on 1 January, 1933, but sentiment and superstition prevailed and the question was laid on the table. The committee, however, was instructed to continue its work and report in 1936 with the hope that by 1 January, 1939, which would occur on a Sunday, the plan would have had sufficient endorsement to make its adoption practicable. But the war came on and the matter remained on the table.

Whatever may be the paradoxes with relation to time involved in modern physics, everyone agreed with Artemus Ward that time flies; "it's a way time has." Time of itself has no divisions, it flows like a river, but for practical reasons we divide it up. The earth assists by dividing it into days and years as it rotates on its axis and makes its long journey round the sun. The moon also by its phases suggests the further division of the week, which has established itself, chiefly by the aid of religion.

How the week began we do not know. The Hebrews had it early in their recorded history, and early in the Christian era the Romans adopted it, not from the Jews only but also from the pagans. It belonged to a scheme of naming the days

of the week after the seven planetary deities: the Sun, the Moon, Mars, Mercury, Jupiter, Venus and Saturn. No doubt the superstition associated with the number seven had something to do with it. Some physiologists are of the opinion that it is a biological cycle, written into the human constitution.

At the present time the United States Congress is discussing a bill which, if approved, would make a tremendous contribution to the campaign for calendar reform. It is for a 12-month year with the first month of each quarter of 31 days and the other two 30 days. There would be a day left over, and it is proposed that this day should follow the last day of December and be called Year-End World Holiday.

In leap year a day would be inserted in the middle of the year. These days would be universal holidays. The plan seems to be winning out in popular approval. A number of nations have already signified their approval of calendar reform and the matter is already before the United Nations.

The strongest objections have been to the introduction of an intercalary day or days by which the regular sequence of the week is interrupted. It is held by some objectors that "the weekly cycle ordained by the Creator from the beginning of time has never been altered." The proposed calendar, they claim, will "strike a deadly blow at Bible religion." A few years ago the *Sunday School Times* in an editorial entitled "Improving God's Law" said: "God established the week of seven days" and prophesied dire judgments upon those who would "interfere with the regular march through the centuries."

One finds it difficult to take such objections seriously. If God made the week He kept the vast majority of His children ignorant of the fact, for, with the exception of the Jews, and perhaps the Babylonians, no other people had a week of seven days. The early Romans worked

seven days and on the eighth went to market. The Mayan civilization had a week of five days; so had some Nordic groups, the Chinese and the ancient Scandinavians. During the classical period the Greeks did not measure time by weeks but a decade of ten days. In Africa there have been three, four, five and six-day weeks, depending on the market day. Periods of five rather than of seven seem to have been more common before the Christian era. The five-day week is a perfect fit for the year, but it does not seem to fit the human machine. Stalin found this out, for after trying it out for some time he returned to the seven-day week with one day for rest. It was not God but man who made the week and gave the days their names.

The proposed calendar is careful not to interfere with the sacred associations of the Lord's Day and the Sabbath for the Jews, for the first day of the week is Sunday and the seventh Saturday.

As for the week itself, how it came about that the Jewish-pagan week of seven days won out over that of eight days which obtained in the Roman empire, we do not know. The Jews had their week ending with the Sabbath, but they were a minority in the Roman world. The great majority of the people were pagans who had a high regard for planetary influence and who named the days after the seven planets. Colson, in his book, *The Week*, inclines to the idea that the acceptance of the seven-day week was due to this superstitious belief in the good or evil influence of the planets so that a man rose on Friday or Saturday with the belief, vaguely or profoundly, that these days were under the influence of good or evil planets and he would have to watch his step accordingly. He also saw that the Jews accorded special respect to Saturn's day, which they called the Sabbath, on which they did not work. But that is another story.

When the matter of calendar reform comes before the United Nations for final discussion and adoption it will be a superstitious belief that the week of seven days

has been divinely ordained, held by some religious sects, that will form the chief opposition to a wide and much overdue reform.

Split-Second Time

By F. BARROWS COLTON and
CATHERINE BELL PALMER

From *The National Geographic Magazine*,
"Copyright," Washington, D. C., September,
1947

EARLY calendar makers did a bad job trying to match up the months with the year, until by Julius Caesar's time the calendar was running two months ahead. Fall began in the summer, and winter in the fall. Caesar fixed it in 46 B.C. by lengthening that year enough to bring things back on schedule. But he miscalculated slightly and by 1582 his calendar had gained 10 days.

Then Pope Gregory XIII decreed that 5 October should become 15 October, and put us on a schedule that we still follow today, though England and other Protestant countries of Europe did not adopt it until almost two centuries later.

Many people still are not satisfied with the calendar, since months vary in length and holidays sometimes fall on Sunday. Before Congress today is a bill for adoption of The World Calendar, which rearranges the 12 months into equal quarters of 91 days each. The first month in each quarter would have 31 days; the other two, 30.

The year would have 364 days, with an extra day at the end called "Year-End World Holiday"; "Leap-Year World Holiday" would follow 30 June every fourth year. Each year and each quarter would start on Sunday and end on Saturday. Fixed holidays would fall on the same day of the week every year.

Already approved by 14 nations, The World Calendar is being considered by the United Nations and the Inter-American Economic and Social Councils.

FROM THE MAIL BAG

It is, of course, perfectly clear that the question of the reform of the calendar and the fixing of Easter are quite separate and distinct matters and that the one could be adopted without the other. I think that it is the duty of all Governments to make changes if they think they are beneficial to their countries.—The Right Hon. Lord Merthyr, Hean Castle, England.

We are glad to take up again our relations with your Society. By its great victory America has become now the head of the world, so we hope it will also make a greater contribution to calendar reform in accordance with your project, in order that the Reform long sought may soon be realized.—Rev. F. Valentine Panzarasa, Pontificio Ateneo Salesiano, Torino, Italy.

I hope that your program may be successful and The World Calendar may be adopted at the turn of the second half of this important century.—Robert Orr, New York, N. Y.

The war being over I think it is time to rearrange scientific work in all the countries of war-shattered Europe. Science of the future will greatly profit by an improvement or a revision of the calendar.—Heinrich Adam, Bad Oeynhausen, Germany.

The advantages of The World Calendar are easily seen when you point them out. Yours is a work involving that often slow process of educating the public to accept something better. I have no doubt, though, that your efforts will be fruitful and you have my very best wishes.—Dr. Ervin Seale, Church of the Truth, New York, N. Y.

Wishing you every success with your extremely worthwhile undertaking.—George P. Ludlam, Vice President, The Advertising Council, Inc., New York, N. Y.

It was essential that some great nation should lead and it is therefore particularly pleasing that the United States should have progressed so far as to introduce a bill into Congress containing provisions for the early adoption of the new calendar. I sincerely hope that the Foreign Affairs Committee will report most favorably on the bill, and that it will be passed by Congress, and receive the assent of the President, in time to become law and to be adopted at the beginning of 1950. I have little doubt that if the United States does bring this new calendar into use then Great Britain and the British Dominions would very soon follow suit, and as a result other nations throughout the world could hardly fail also to fall in line.—E. G. Jones, Teachers' Training Coll., Auckland, New Zealand.

It is gratifying indeed to know that at long last a bill, H.R. 1345, has been introduced in Congress, and the Rotary Club of Chelsea desires to be recorded as an ardent supporter. We want you to know that we are eagerly awaiting the establishment of The World Calendar, and hope it will be passed by a large majority. We are now living in the "Plastic Age" and business houses everywhere are putting on new fronts. Airplanes are encircling the globe, and we also have gone to great heights in Chemistry and Medicine. Properly to fit this era of enlightenment, The World Calendar comes into the picture to facilitate the labor of men and women in all walks of life.—Henry M. Levene, Secy., Rotary Club of Chelsea, Mass.

Personally, I am strongly in favor of The World Calendar movement.—J. Hugh Pruett, Astronomy Instructor, Gen. Extension Div., Univ. of Oregon.

This is by far the best solution of the calendar problem I have seen.—Dr. William F. Luebke, Professor of English, Univ. of Denver, Col.

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Membership is based on active interest in the study of adequate and effective improvement of the calendar. Owing to lack of space, a large number of names have been omitted. They will be printed in future issues.

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ONE WORLD CALENDAR FOR ONE WORLD

VOL. XVII

FOURTH QUARTER, 1947

No. 4

THE United States Department of Commerce has now gone on record that it is favorably disposed towards The World Calendar. As the executive department dedicated to domestic and foreign commerce, this action in regard to calendar stabilization accords with the benefits to business that will result from adoption of The World Calendar.

The complexity of the modern world is partly the result of the interdependence of separate groups and different areas. With the increased speed of communication and transportation, every nation and indeed the entire world have become closely knit beyond the imagination of persons living even a century ago. Heterogeneity ultimately tends irresistibly to homogeneity.

"No man is an island unto himself alone," and no human activity can be completely separated as a thing apart from all other activities. All are related. All affect each other. Business is the name we give to one phase of living, but its reactions and interactions are as various as there are people. Political, scientific, religious and other cultural and economic aspects affect business profoundly and in turn are deeply affected by it.

Calendar revision is in many respects a peculiarly good example of these principles. It is inherently universal. Improvement will benefit every individual, group, nation and international organization. It will benefit every phase of life and those in all walks of life. This is no less true because of the fact that the agitation for calendar reform has come in the first instance from business, and the benefits that will be derived are primarily those to business.

The decision of the United States Department of Commerce was to be expected and merits applause.

J O U R N A L O F

CALENDAR REFORM

October, November, December
1947

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SLIDING CHRISTMAS

The Washington, D. C., Times Herald of Thursday, 25 December, 1947, published the following article in Frank Waldrop's column, which that day was titled "Holidays."

CHRISTMAS always comes on 25 December, all right, and this year it comes on a Thursday. But on what day of the week was Christmas last year? On what day will it be next year? And wouldn't it make things easier all around if Christmas fell every year on Monday?

There is no reason against any such sensible arrangement. It only requires a new calendar method of tracking the passage of time.

Our present calendar is completely out of date, having been put together by the late Julius Caesar (100-44 B.C.), and adjusted by the late Pope Gregory XIII (1502-85 A.D.), in an effort to compensate for a few of Caesar's more obvious errors. Both Caesar and Gregory did nobly for their day and time. But their results just don't provide adequately for modern needs.

The trouble with our present calendar is that the quarters of the year are not equal, the holidays slide all around the week and everybody has trouble remembering what happens when.

For a long time some smart people have been giving thought to a way of correcting these difficulties and the result of their work is the proposed new calendar.

The proposed World Calendar is the ideal solution of the problem since it provides that all quarters of the year are equal, the leap-year item is accounted for and one year's calendar is just the same as the next, holidays and all.

This proposed World Calendar has been widely accepted by religions, labor unions, insurance companies, associations of railroads, banks, newspapers, businesses, manufacturers, doctors, lawyers and astronomers, each for the obvious benefits to their concerns.

Insurance companies, for instance, would be grateful indeed for a calendar that would have premium and interest payments flowing with a steady beat instead of in the present irregular fashion.

In fact, the only people we can think of who might have a real objection to the change are those in the calendar business.*

* EDITOR'S NOTE: The market will continue for diaries, notebooks, desk pads, and similar dated material with provision for notations and records. This public demand has been rapidly growing and may well increase greatly after adoption of The World Calendar.

And even they would surely be able to make money as usual out of the perpetual calendar just by bringing out fresh cover girl art work from time to time.

The World Calendar has such wide acceptance among business and allied organizations all over the world that it is a wonder Congress hasn't made it legal for the United States of America before now.

Prospects that it will do so are getting better all the time. Resolutions for the changeover were introduced by both Democrats and Republicans in the Seventy-ninth Congress and are up again in the Eightieth.

The United Nations is also pecking away on the same line. A resolution on revision of the calendar was unanimously adopted on 24 March, 1947, during the fourth session of the United Nations' Economic and Social Council and since that time Member Governments of the whole United Nations have received briefs in detail.

Fourteen nations are already on record favoring the change, but the key, of course, rests with the United States. This was plainly signified by United Nations' Secretary-General Lie on 14 July, 1947:

"The House of Representatives of the United States Congress has already received the draft of House Resolution 1345 to authorize the President of the United States to take the necessary measures for the adoption of The World Calendar on 1 January, 1950. If a vote is taken upon this draft, it will facilitate the adoption of the reform throughout the world."

So there it is. If this thing is to be in effect by 1950, it will have to be legalized early in 1948. And why should it not be? It is a clear gain for orderly business and business is asking for it.

THERE AIN'T NO SANTA

UNDER a dateline, San Francisco, 13 December, the *Brooklyn Daily Eagle* published a United Press Dispatch as follows:
"There'll be no Christmas this year for the passengers aboard the Matson liner Marine Phoenix, which sailed for Australia yesterday. The vessel will cross the International Dateline 24 December and the next day will be 26 December, leaving Santa Claus completely at sea."

IT'S A DATE

By Dr. Samuel G. Barton

This article appeared in The Scientific Monthly of November, 1947. Professor Barton is a member of the Department of Astronomy at the University of Pennsylvania. His article is reprinted exactly as published save some corrections made by the author.

SIR Isaac Newton, the greatest astronomer, and probably the greatest scientist, of all time, was born in Woolsthorpe, England, sometime in the year 1642 or 1643. The date is left thus indefinite because I have found, in what are usually regarded as at least moderately reliable sources of information—biographies, histories, encyclopedias, treatises on astronomy and on physics, and the like—the following given as the date of his birth: January 4, 1642; January 5, 1642; December 5, 1642; December 25, 1642; January 4, 1643; and January 5, 1643.

There is no real uncertainty as to the date of his birth but, even if there were, there should be none about the date of his death, for few men were more famous. His death was world-wide news. Nevertheless, I find given as the date of his death March 21, 1725; March 20, 1726; March 3, 1727; March 20, 1727; March 31, 1727; and May 20, 1727.

It is probably impossible to account for some of these dates except by attributing them to gross carelessness. A likely, or at least possible, explanation can be given for some of them. Some are correct when properly interpreted. The errors show that otherwise well-educated persons need information on the subject of calendars and that a rediscussion of it should be of value.

In such a discussion certain facts must be kept clearly in mind. From the time of the establishment of the Julian calendar, in 45 B.C., until October, 1582, this calendar was in general use. In it every fourth year is a leap year. With our present system of numbering years from the supposed year of the birth of Christ (which system, however, was not introduced until A.D. 525 and was little used until the eighth century), the leap years, in the A.D. period, are those years (with the year beginning January 1) whose numbers are evenly divisible by four.

Under the Julian calendar various dates have been used as the beginning of the year, chiefly January 1, March 1, March 25, and December 25. Convincing evidence that Augustus Caesar did not change the number of days in August, as is commonly stated, is given by Lamont in an article

on the Roman calendar in *Popular Astronomy*, November, 1919. It is to be hoped that the erroneous statement will not be repeated.

Two changes were made in the Julian calendar in 1582, primarily for religious reasons connected with the celebration of Easter. Ten days were dropped from the calendar, the day following October 4 of that year being called October 15. Furthermore, all future century years, all of which would be leap years by the Julian calendar, were to be leap years only if their numbers were evenly divisible by 400. Thus 1600 was a leap year in the new calendar, as in the old, but not 1700, 1800, and 1900. The beginning of the year was definitely set at January 1.

This slightly modified calendar is called the Gregorian calendar. The Julian calendar, however, continued in use in many places. It was used in England and her colonies until 1752; it was retained in Russia until 1918, in Greece and Rumania until 1924, and in Turkey until 1927.

Since these two calendars have been in use simultaneously in different parts of the world, it is frequently necessary to distinguish between them. A date in the Gregorian system is designated as New Style (N.S.), and one in the Julian system as Old Style (O.S.). This distinction should always be made where there can be reasonable doubt, but, unfortunately, it is not, and sometimes the terms New and Old Style are used in a different sense. Dates of events between 1582 and 1752, in England and America, are particularly capable of misinterpretation when not so designated.

With these facts in mind, we can discuss the discrepancies in the dates relating to Newton and trace the sources of confusion. Newton was born December 25, 1642, by the Julian calendar, the one then in use in England, his native country. He was born January 4, 1643, by the Gregorian calendar—a different month, a different day, a different year. The difference between the two calendars was then still 10 days.

Wolf, apparently using a difference of 11 days instead of 10, states in his *Geschichte der Astronomie* that Newton was born in "Whoolstorpe," January 5, 1643. This misinformation, including the misspelling of Woolsthorpe, was evidently copied in *La Grande Encyclopédie* and in Newcomb-Engelmann's *Populäre Astronomie* (7th ed., p. 811). (There is a similar error in the date of the death of Tycho Brahe.) Dessauer, in his life of Newton (p. 400), makes the same mistake in the date. The day was Christmas Day in England, but not where the Gregorian calendar was in use. It was Thursday, however, everywhere, as the succession of weekdays was not disturbed by the change in the calendar.

If the year was considered as beginning on March 1 or on March 25, with an otherwise Gregorian date, as was sometimes done, Hazeltine's date,¹ January 4, 1642, is not impossible, but doubtless she simply erred in a curious way. Dessauer's discussion (p. 399) shows some such reasoning

in obtaining his date, January 5, 1642. The date December 5, 1642, is presumably intended to be December 25, 1642. It is given in Winkler Prins, *Algemeene Encyclopaedia*.

Newton died March 20, 1727, by the Julian calendar, with the year beginning January 1. With the year beginning March 25, the date would be March 20, 1726, as given in *La Grande Encyclopédie*. By the Gregorian calendar the date was March 31, 1727. At this time the difference between the two calendars was 11 days, since the year 1700 was not a leap year in the Gregorian calendar. It is not hard to believe that March 3, 1727, the date of death given by Berry in *A Short History of Astronomy* (p. 241), is a misprint for March 31, 1727, and that May 20, 1727, given in *Enciclopedia Universal Illustrada* is a misprint for Mar. 20, 1727. The date March 21, 1725, given in Winkler Prins, is a mystery.

It is commonly said that Newton was born in the same year that Galileo died. Galileo died January 8, 1642, Gregorian calendar, but in that system Newton was born January 4, 1643, which is not in the same year numerically, although the two events were less than a year apart. Galileo's death occurred December 29, 1641, in the Julian calendar, which again is not the year of Newton's birth.

In England, in early times, the year began December 25, but from late in the twelfth century the legal year began March 25, and the same was true in English colonies. March 25 commemorates the announcement to Mary that Christ would be born (Luke 1:26-38), just as Christmas commemorates His birth. March 25 is the day of the Feast of the Annunciation and is commonly known as Lady Day. January 1, however, was customarily called New Year's Day, and New Year's gifts were presented to the kings and queens at this time.

Thus, for all dates between January 1 and March 24, inclusive, there is uncertainty as to the year number to be associated with the Julian date. This uncertainty is increased by the fact that March 25 was not used as the beginning of the year in Scotland, and that it was used at various times in countries other than England and her colonies. This uncertainty was usually removed, especially in later times, by writing a double date. Thus, the record in the family Bible states of George Washington² that he "was born y^e 11th Day of February 1731/2 about 10 in the morning." This indicates that the year of his birth was 1731 for those who began their years with March 25, and 1732 for those beginning the year with January 1.

But suppose that only one year number is given for such a date—how is the date then to be interpreted? For instance, on the tablet concerning Newton in Westminster Abbey, we find the inscription³ "*Obiit xx Mar. MDCCXXVII*," that is, he died on the twentieth of March, 1727. Our

previous discussion shows that this is the date if the year began January 1. Are we safe then in assuming that other such dates should be interpreted in this manner? On the monument to Queen Elizabeth in the Abbey we find the inscription⁴ "*Obiit 24 Martii, Anno Salutis MDCII*;" that is, she died on the twenty-fourth of March, in the Year of Salvation 1602. We know that she died March 24, 1602/3, so this inscription uses March 25 as the beginning of the year.

Although Newton usually dated his letters properly, that is, without this ambiguity, he was not entirely consistent, for we find a letter to Halley⁵ dated "Feb. 18, 1686," meaning "1686/7;" another, to Dr. Mill,⁶ is dated "Jan. 29, 1694," meaning "1693/4." Francis Bacon consistently used years beginning March 25 without the use of double dates. Newton dated one of his letters⁷

Jan. 11, 8 $\frac{7}{8}$

and received one from his nephew Humphrey Newton dated in the rather curious manner,⁸

January 17, —2. $\frac{7}{8}$.

The century number, 16, being supposed obvious, is omitted in the first case, and 17 is replaced by the dash in the second, just as we might write a date as July 4, 47, or, better, July 4, 47. The latter part of the date might have been written 87/8 or 87-8.

Newton wrote one date as "March 2, 1674 O. S."⁹ where Old Style is used to indicate years beginning March 25, and not a date in the Julian rather than in the Gregorian system—its usual significance. Instead of using O.S. or N.S., frequently both dates are given in a combined form. Thus Leibnitz, residing in Germany, where the Gregorian calendar was in use, writing to Newton, in England, where the Julian was in use, dated his letter¹⁰

$\frac{7}{17}$ March, 1693,

the upper being the Julian date. This might possibly be misinterpreted in England. At any rate, Flamsteed is more specific in writing his date¹¹ as "Feb. 17-27, 1680-1." A similar but more complex date written in this style is

$\frac{28}{9}$ day of $\frac{\text{November}}{\text{December}}$ 1713,

and the still more complex date of Newton's birth is

$\frac{25 \text{ December } 1642.}{4 \text{ January } 1643}$

It is now customary to give the year of a Julian date of a historic event as though the year began January 1, regardless of the practice at the time and place of the event. Such a date is called the historical date; but of course there are authors who are either careless or ignorant, and care is needed to be sure that the dates in the original sources are correctly interpreted.

The decree of Pope Gregory XIII ordering the adoption of the Gregorian calendar is "dated at Tusculum in the year of the Incarnation of our Lord one thousand five hundred and eighty first, the sixth of the calends of March, of our pontificate the year 10." The equivalent of this date is February 24, 1581, Julian calendar of course. The Pope, however, did not begin his years with January 1, so the historical date is February 24, 1582, and that is the date that would normally be given. Similarly, by the original record, Marco Polo died January 8, 1323, but since in Venice the years then began March 1, not January 1, the historical date is January 8, 1324.

Julius Caesar is commonly supposed to have made January 1 the beginning of the year. Beginning about the seventh century, the church preferred to begin the year with one of its festivals, such as Christmas Day, Lady Day, or Easter Day. In the Middle Ages, in certain religious or ecclesiastical connections, March was considered to be the first month of the year, and certain computations were based upon March 1 as the beginning of the year. This day was so used, however, for these special purposes only and was not in general use, although there were a few places where the year numbers changed on March 1, notably at Venice. In the later centuries of the Middle Ages, January 1 gradually came into greater favor, and it was definitely made the beginning of the year in the Gregorian calendar in 1582.

It is of particular interest to note that the Quakers, in England and America, and perhaps elsewhere, until 1752 called March the "First Month" and designated the others correspondingly, February being to them "Twelfth Month." Franklin, in *Poor Richard's Almanacks* (famous in their day and still so), used years numbered as beginning January 1, but the month itself was designated as "XI Mon. January;" that is, Franklin, too, designated January as the "Eleventh Month," and he continued to do so until 1752. There are other very interesting points about the Quaker calendar, which I shall not discuss here.

As already stated, March 25, Lady Day, was commonly used as the beginning of the year. When, in 1744, Easter Day coincided with Lady Day, Franklin's *Almanack* designates the day as "Easter Day in my Lady's lap." Queen Elizabeth died on March 24. Her contemporaries termed this

day "Lady's Eve" and "Our Lady Even," just as we speak of New Year's Eve.

The *Encyclopaedia Britannica*, under the heading "New Year's Day," gives the following misinformation: "The first day of the year. In the Gregorian calendar this occurs 12 days earlier than in the Julian; thus New Year's Day is the English 13th of January." The intended meaning of the preceding sentence is not clear. The facts are that the difference between the dates in the two calendars has been 13 days since 1900 and that the Julian New Year's Day now falls on January 14 of the Gregorian calendar.

Notwithstanding the different days for beginning the year, February 29, the extra day inserted in leap years, was the same day. Thus, although Washington was born in 1731, counting March 25 as the beginning of the year, February 29 was inserted in that year, even though 1731 is not evenly divisible by four. Jefferson's father was born¹² February 29, 1707-8.

The dates of events in English history are expressed in the Julian calendar, that is, as Old Style dates, until 1752. The custom in the United States differs in that we frequently express the dates of events in our history between 1582 and 1752 in the Gregorian calendar, that is, in the New Style. We did not have the large number of important historical events in this interval that England had, and it is perhaps simpler to have these dates expressed in the system now used, thus having a single system. This is debatable, however.

To illustrate, both in the United States and in England, Columbus would be said to have discovered America on October 12, 1492, just as Columbus himself recorded the date; but many of us, at least, say that the Pilgrims landed at Plymouth on December 21, 1620, although they recorded the date as December 11, 1620, and the English would so date events on that day. The English will tell you that the Astronomer Royal Maskelyne was born October 6, 1732. Had he been born in this country we would change the date to the Gregorian system, as we do with the date of Washington's birth in the same year, and say that he was born October 17, 1732. There is the greater reason for doing this when the person concerned was alive in 1752, when the calendar was changed. We would not transform the dates of English history in this manner.

There is an enormous amount of inconsistency in the matter. Historians and others dealing with dates frequently, if not usually, give dates in this interval without the slightest indication as to whether they are Julian or Gregorian, and if one is determined to find out which by hunting through the original sources—a thing he should not be obliged to do—he finds it difficult to locate them. Often some dates are given by an author

in one system and some in the other without distinction. Some dodge the point by giving the year only.

Suppose that we are treating of William Penn, who was born in England and who died there, but who lived for a time in Pennsylvania and was very important in its history—how shall we date his life? Both the *Encyclopaedia Britannica* and the *New International Encyclopedia* state that he was born October 14, 1644, and that he died May 30, 1718, without stating which system of dating is used. It is Old Style; but the fact is that he died July 30 and not May 30, 1718. This error evidently resulted from a misinterpretation of the expression "Fifth Month."

The same ideas prevail in the times of the celebration of anniversaries of historic events. For dates prior to 1582 the original date is used. Thus, Columbus Day, which commemorates the discovery of America, is October 12. Christmas Day, the anniversary of the birth of Christ, was celebrated on the same date, December 25, the supposed true date of the event, in both the Julian and the Gregorian calendars, although this was not actually the same day.

However, when the four hundredth anniversary of the discovery of America was celebrated by the World's Columbian Exposition, the grounds were formally dedicated "On Oct. 21, 1892—corresponding to Oct. 12, 1492" (*Encyclopaedia Britannica*, 5, 455). Here the Gregorian system was applied by extrapolation to a date prior to its creation—an unusual procedure.

For events in the history of the United States later than 1582, we in the United States usually celebrate on the Gregorian date, even though the Julian calendar was in use at the time and place of the event. As examples we have William Penn's birthday (Pennsylvania Day, in Pennsylvania) on October 24, not October 14; Franklin's birthday (Poor Richard Day), January 17, not January 6; Washington's birthday, February 22, not February 11. Georgia Day is February 12, not February 1, when Oglethorpe landed, in 1733.

Note, however, that Forefathers' Day, which commemorates the landing of the Pilgrims, is December 22, although they landed on December 21, 1620, which is December 11, 1620, O.S. The explanation is that the Old Colony Club started the celebration of the day in 1769, which was shortly after the adoption of the Gregorian calendar. Eleven days were added to the Julian date, which was the correct difference in 1769 but not in 1620. The erroneous day for celebration has been used ever since. No one pointed out the error until 1832.

The custom in England is different. There events are commemorated in the Gregorian system on the same date as that on which they occurred

in the Julian. Thus the bicentenary of the death of Newton was considered to be March 20, 1927, and not March 31, 1927, as we would have considered it. The main features of the celebration were on March 19, since the twentieth fell on Sunday. Sir Christopher Wren died February 26, 1723, O.S. A bicentenary service was held February 26, 1923. When the event is one of English history such as these, we in the United States are likely to conform to the English system, although I suppose that there is no rigid rule.

Tycho Brahe was born December 14, 1546, between nine and ten o'clock in the morning, as we state the fact. Tycho himself, however, in several places¹³ alludes to December 13 as his birthday. The reason is that Tycho used astronomical time, in which the days begin at noon rather than at midnight. As this system was not used by the general public, I shall not explain further.

The bill to improve the calendar introduced in the House of Representatives by Representative Kee (H. R. 1345) states that the Gregorian change "entailed a loss of two Fridays, two Saturdays, and two Sundays, and one Monday, Tuesday, Wednesday, and Thursday; or one week and three days of that year." This is an erroneous statement. In the change, Thursday, October 4, 1582, was followed by Friday, October 5, Julian, and by Friday, October 15, Gregorian. The dates October 5-14, inclusive, were dropped, but the succession of weekdays was retained. The combined year 1582, Julian and Gregorian, contained but 355 days, and the weekdays lost were those corresponding to December 22-31, Julian, which went into the year 1583, Gregorian. December 22 was Saturday, so the loss was two Saturdays, etc., and not the days with the names of October 5-14, Julian, given in the bill.*

Although all the confusion that has just been discussed and illustrated does not arise from the so-called Gregorian reform of the calendar, I think that the reader should by this time be softened up enough, to use the military expression, to appreciate the background giving rise to the following comment on this change by Newcomb, the greatest astronomer America has produced. In his book *Popular Astronomy* (New York: American Book Co., p. 50), he says:

If there were any object in having the calendar and astronomical years in exact coincidence, the Gregorian year would be accurate enough for all practical purposes during many centuries. In fact, however, it is difficult to show what practical object is to be attained by seeking for any such coincidence. It is important that seed-time and harvest, shall occur at the same time through several successive generations: but it is not of the slightest importance that they should occur at the same time now that they did 5000 years ago, nor would it cause any difficulty to our descendants of 5000 years hence of the equinox should occur in the middle of February, as would be the case should the Julian calendar have been continued.

* EDITOR'S NOTE: This sets forth an interesting and correct viewpoint and interpretation, although not invalidating the calculations on which the United States Congressional bills are based and confirms the main point that days as well as dates were dropped upon adoption of the Gregorian calendar.

The change met with much popular opposition and it may hereafter be conceded that in this instance the common sense of the people was more nearly right than the wisdom of the learned. An additional complication was introduced into the reckoning of time without any other real object than that of making Easter come out at the right time.

Another complication is introduced by the Gregorian calendar. It is a common statement that the length of the saros, the eclipse cycle, is 18 years, $11\frac{1}{3}$ days, or 18 years, $10\frac{1}{3}$ days, according as four or five leap years are included in the interval. The fact that, by the Gregorian calendar, at times only three leap years are included is usually overlooked or at least not stated. A better statement is that the saros is equal to 18 calendar years plus $10\frac{1}{3}$ days if five leap days (February 29) are included, $11\frac{1}{3}$ days if but four are included, and $12\frac{1}{3}$ days if but three are included, as may happen when a century year not a leap year, such as 1900, is involved. The saroses including the years 1582 or 1752 require special consideration.

As those who read about the reasons for the Gregorian change usually, I think, get a much exaggerated idea of the importance of the fact that the Julian year is a bit too long, thus causing the seasons to come one day earlier in an interval of 128 years, I amplify Newcomb's statement by calling attention to the fact that one may travel by air from the middle latitudes of the Northern Hemisphere to those of the Southern Hemisphere in a few days and by so doing completely reverse the seasons.* Even more to the point are the facts brought out in an article in *The Sky* (March 1939), "The Vagaries of the Seasons," by Dr. E. W. Woolard, then of the U. S. Weather Bureau.

Dr. Woolard shows, in particular, that in the United States the number of days intervening between the day of the summer solstice and the average day of highest normal temperature, the lag of the season, varies from 10 days at El Paso, Texas, to 100 days at San Francisco, Calif. At Sacramento, less than 100 miles inland, the interval is but 37 days. Thus there is a difference of 63 days in the times of the hottest day at San Francisco and at Sacramento, which are no great distance apart. Any place may have a late or early spring or other season, in any year.

While on this subject, how can I neglect mention of Phileas Fogg, who, according to Jules Verne, wagered that he could make "The Tour of the World in Eighty Days?" Having started at 8:45 P.M., Wednesday, October 2, he was due to return before 8:45 P.M., Saturday, December 21. He arrived in London at 8:50 P.M., Saturday, December 21, only five minutes too late, financially ruined, as he supposed.

The next day, nevertheless, faithful Aouda asks, "Will you have me

* EDITOR'S NOTE: The reference to the seasons is amusing but does not really alter the desirability of a stable calendar as closely as possible approximating seasonal fixity.

for your wife?" (It was in the year 1872, a leap year.) He replies, "Yes . . . Will it be for tomorrow, Monday?" She agrees, "Yes, for tomorrow, Monday." (In this day she would have replied, "O.K. It's a date.") But the clergyman decided that marriage "tomorrow" was impossible as that day was Sunday. An error in Mr. Fogg's date was thus discovered. There was a mad rush to the starting point, The Reform Club, and the journey was completed within the time limit by the narrowest of margins. Mr. Fogg had traveled around the world eastward but, extremely meticulous though he was, had failed to drop a day from his dates on crossing the international date line. Considering that hectic journey, one can scarcely blame him.

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13. DREYER, J. *Tycho Brahe*, 12.

ENDORSEMENTS

ON 10 November, 1947, the Denison Chapter of the American Association of Commons Clubs at Granville, Ohio, adopted a resolution which read in part: "Having given consideration and study to the proposal that the present calendar (known as the Gregorian calendar) should be revised and simplified more adequately to fit the needs of the world, and having reached the conclusion that The World Calendar proposed by The World Calendar Association of New York City incorporates the desired changes."

The Board of Directors of the Kiwanis Club of Easton, Pennsylvania, on 4 December, 1947, unanimously endorsed The World Calendar.

HAPPY NEW YEAR'S— OH YEAH?

On New Year's Eve the New York Daily News, bearing the Thursday, 1 January, 1948, dateline, devoted its editorial page to The World Calendar and the editorial is here reprinted.

WE wish one and all a Happy New Year, and think there are some grounds for hoping 1948 may be a pleasanter show than 1947; but as for a happy New Year's Day this time around, that is another matter.

There is the customary hangover, for one thing. But this wouldn't be so bad if millions of people didn't have to look forward to going back to work tomorrow before relaxing for the week-end.

We had the same trouble last week, when Christmas fell on Thursday, leaving Friday to shadow the holiday.

There are various unpleasantnesses connected with most of our holidays nearly every year. The only invariably satisfactory one, indeed, is Labor Day. It falls on the first Monday in September without fail.

The reason for all these griefs is the calendar we use. This calendar in its essentials was devised by mathematicians working for Julius Caesar, who lived 100-44 B. C. It was given a New Look by Pope Gregory XIII's scientists in 1582.

What we need is a reformed calendar—one which will keep all the best features of the Gregorian and eliminate its flaws. The World Calendar fills this prescription about as well, we think, as it could be filled.

Proposed by The World Calendar Association for adoption by all nations, this device keeps the familiar names for the days of the week and the months of the year.

It doesn't go in for any such stunts as the French Revolutionists tried back in 1793, when they gave months such tags as Thermidor, Brumaire, and so on, and started dating events from the Year I of the Revolution.

The proposed improvement consists in a reshuffle of dates within the framework of the old calendar.

As you can see, the first month in each quarter—January, April, July, October—would have 31 days. All others would have 30 days apiece. That would make every holiday fall on the same day of the week each year.

The 12 months would add up to 364 days, instead of to 365 as at present, or to 366 in leap years.

The extra day in regular years would come between 30 December and 1 January, and could be called by any name we chose—World Holiday, etc. In leap years, a second extra 24 hours would be set aside between 30 June and 1 July.

With this simple improvement, we could at least count on holidays falling on the same weekdays every year. But by another simple improvement we could cut ourselves in on several three-day week-ends a year—just by agreeing to observe 4 July on Mondays, Decoration Day on Fridays or Mondays, Columbus Day on Friday, and so on.

The other advantages of a truly scientific, genuinely systematic calendar are almost too numerous to list.

For one thing, the business of banks, mortgagors, mortgagees, retail and wholesale merchants, and all others who operate on monthly, quarterly or annual bases would be greatly simplified.

Why shouldn't the United States lead the way in this reform; and why shouldn't the 80th Congress, convening in regular session next week, take unto itself the historic distinction of having started the ball rolling?

ANNUAL MEETING OF INTERNATIONAL

THE annual meeting of The World Calendar Association, International, will be held on 15 January, 1948, at the world headquarters in the International Building, Fifth Avenue, New York City. Officers will be elected; the year 1947 will be reviewed and plans made for the year 1948. Nearly every Affiliate has indicated it will attend or be represented.

LATIN-AMERICAN TOUR BY PRESIDENT

ON 16 January, 1948, Miss Elisabeth Achelis, the President of The World Calendar Association, will leave New York by plane from LaGuardia Airport on a trip exclusively by air transport. She plans to visit practically every nation in South and Central America to confer in each nation with the head of its Affiliate with The World Calendar Association, International, and officials of the government. Her extensive itinerary as projected will bring her back to New York late in March.

CALENDAR REFORM AND THE WORLD CALENDAR

By E. G. Jones, M.A., B.Sc.

The Journal of the Royal Astronomical Society of New Zealand, is called Southern Stars. Its October, 1947, issue contained this article, which has been slightly condensed for republication.

*"Therefore,
Be it enacted by the Senate and House of Representatives of the
United States of America in Congress assembled,*

That on and after January 1, 1950, The World Calendar hereinafter set out in words and figures shall be the official calendar of the United States of America and all the Territories subject to its jurisdiction.

That the President is hereby authorized and directed to take appropriate administrative action within a reasonable time prior to January 1, 1950, to facilitate the change by the Government and by the public in accordance with this Act.

That the President is authorized and requested to urge at the earliest possible date upon the governments of the nations of the world at appropriate conferences that may be held and/or sessions of the United Nations and/or other international bodies, that The World Calendar be adopted, effective January 1, 1950."

THE above is a copy of a bill introduced into the House of Representatives of the Congress of the United States of America by Mr. Karl Mundt on 15 July, 1946. The bill was referred to the Committee on Foreign Affairs.*

This bill is the culmination of many years of effort on the part of The World Calendar Association, Inc., of New York City, an Association in which most of the nations of the world are represented. It has been the endeavor of the Association to get one or more of the great nations of the world to take the leadership in calendar reform by adopting The World Calendar, and so pave the way for its universal adoption. If this bill goes through the United States Congress, and receives the President's assent, as is most likely, the new calendar will be in use in the United States in 1950. According to The World Calendar Association, it appears probable that there will shortly be a similar bill before the Parliament of Canada.

* EDITOR'S NOTE: An identical bill was introduced by Mr. John Kee on 27 January, 1947, and in the Senate by Mr. Elbert D Thomas, of Utah on 26 July, 1947.

Fourteen other Governments, viz., Afghanistan, Brazil, Chile, China, Esthonia, Greece, Hungary, Mexico, Norway, Panama, Peru, Spain, Turkey and Uruguay, have officially approved the adoption of the proposed World Calendar, and, in the event of its adoption by the United States of America, would almost certainly follow the lead.

So far Great Britain has contented itself with passing a law (in 1928), stabilizing the date of Easter, but awaiting international agreement before adopting it. It appears that the British Dominions and Colonies are awaiting a lead by Great Britain before adopting such a reformed calendar.

In New Zealand efforts are being made at present to test public feeling, and to educate the people, in regard to the defects of the present calendar, and the nature and advantages of The World Calendar, but the matter has not yet been brought before Parliament.

If sixteen nations, including some of the greatest nations, were to adopt The World Calendar, it is very unlikely that Great Britain and the British Empire would be long before following suit, and then the new calendar would be in almost universal use throughout the world.* So it is quite possible that, within the next decade, we in New Zealand may find our present calendar replaced by the new 12-month, equal-quarter, perpetual calendar, known as The World Calendar.

NATURE OF A CALENDAR

A calendar is an orderly and scientific arrangement by which days are combined into periods which are adapted to the requirements of civil and religious life, e.g., weeks, months, quarters, years.

The main essentials of a good calendar are that the seasons should occur on or about the same calendar dates each year. Thus January is a summer month for us. It would never do if it were sometimes a winter month. Therefore, an essential unit of the calendar must be the seasonal year, or the interval of time between two consecutive seasons, a period which is found to be 365.2422 days. It is obvious that the day is also an essential unit of the calendar. We use the mean day, or the average of all the solar days (a solar day being defined as the interval of time between two consecutive crossings of the meridian by the real sun), as our calendar unit. Unfortunately, and this is the cause of the complexity of our calendar, the seasonal year is not an exact multiple of the mean day. It is to be noted that two of the periods used in the calendar, the day and the year, are astronomical periods, while others such as the week, the calendar month, and the subdivision of the day, all of which are multiples or fractions of the day, are artificial.

* EDITOR'S NOTE: Probably the writer had in mind the fourteen nations which since 1937 have approved The World Calendar, with the additions of the U.S.A. and the U.S.S.R. or France.

Our present calendar fulfills almost completely this main essential of a good calendar, that the seasons should fall on or about the same calendar date each year. Actually the error amounts only to about a day in 3,000 years. This is the result of the Gregorian rule for leap year, established in 1582.

In his day, 45 B.C., Julius Caesar, on the advice of the astronomer Sosigenes, took the length of the seasonal year to be $365\frac{1}{4}$ days, and so, to avoid the use of fractions of a day in a year, which would be quite impracticable, decreed that each year should consist ordinarily of 365 days, but that every fourth year should be bissextile or leap year (so called because after February the days of the week leap an extra day, as compared with other years) of 366 days. This arrangement would of course work perfectly if the calendar year consists of exactly $365\frac{1}{4}$ days, since the quarter of a day would add up to exactly one day every four years. But as we have seen, the calendar year is 365.2422 days, or 0.008 days ($11\frac{1}{2}$ minutes) shorter than $365\frac{1}{4}$ days, and so in the course of 128 years the Julian calendar falls into error by one day. However, in spite of this, the Julian calendar lasted for nearly 1,600 years.

The next man to reform the calendar was Pope Gregory, in 1582. By this time the Julian calendar was 10 days in error, the seasons falling 10 days earlier than they should. Gregory, on the advice of the astronomer Clavius, made the following corrections:—

(a) He fixed the date of the vernal or spring equinox as 21 March. This was the date on which it occurred in the year 325 A.D., the year of the great council of the churches at Nicea. Pope Gregory's idea was to commemorate for ever this important ecclesiastical event.

(b) Since in 1582 the vernal equinox fell on 11 March, it was necessary to drop 10 days out of the calendar. Hence Gregory decreed that the day following 4 October, 1582, should be called 15 October.

(c) To correct the error which had necessitated the change of the calendar, Gregory established a new rule for leap year, i.e., that every year whose date number is divisible by 4 without remainder will be a leap year (with an extra day in February), unless it is a century year, in which case its date number must be divisible by 400 without remainder, if it is to be a leap year. Thus the year 1900, though divisible by 4 without remainder, is not exactly divisible by 400, and so was not a leap year. The year 2000 (if the present leap-year rule still holds) will be a leap year. The effect of this Gregorian rule for leap year is to make the mean length of the calendar year 365.2425 days, which is slightly in excess (26 seconds) of the length of the real seasonal year of 365.2422 days. Thus our present

calendar, which is the Gregorian calendar, goes wrong by about one day in some 3,000 years.

The Gregorian calendar was not adopted in Britain until 1752, and in the meantime a century year, which should not have been counted as a leap year, had intervened. Hence it was necessary to drop 11 days out of the calendar. This was done by giving the name 14 September to the day after 2 September in 1752. This alteration in the calendar was accompanied by riots in London and other places, because a great many people thought it was a deep-laid scheme of the Government to do them out of eleven days' wages. It is easy to see that a man on daily wages would lose eleven days' wages in the month, while on the other hand, a man paid by the month would receive for the month the same amount of money for eleven days' less work.

It may be noted that the Americans celebrate the birthday of George Washington on 22 February, but he was actually born on 11 February, 1731/2, when the Old Style calendar was in use. Also, when Alaska was sold to the United States by Russia in 1867 for \$7,200,000, the first thing the American authorities had to do was to drop 12 days out of the calendar, to bring the former Russian calendar into line with their own.

DEFECTS OF OUR PRESENT CALENDAR

Some obvious faults in our calendar are:—

(a) The first six months of the year, i.e., the first half of the year, contain 181 days, or 182 days every fourth year, while the second six months, i.e., the second half of the year, contain 184 days. The four so-called quarters contain 90 (or 91), 91, 92, and 92 days respectively.

(b) The weekday name of each calendar varies from year to year. Thus if Christmas Day this year (1947) falls on Thursday, as it does, then next year 25 December will be a Saturday (since 1948 is a leap year), and so Christmas Day will occur on Saturday. Last year Christmas Day fell on a Wednesday. Actually the days of the year recur on the same day of the week in 7 x 4 years, thus giving rise to the so-called solar cycle of 28 years.

(c) In the Ecclesiastical calendar some holy days, and hence in civil life some holidays, e.g., Christmas Day, are observed on fixed calendar dates of the year. Others such as Good Friday and Easter Sunday are observed on fixed days of the week. Thus Easter Sunday falls on different calendar dates each year. Most of the ecclesiastical holy days are at fixed intervals before or after Easter Sunday, which itself, besides falling on a Sunday, also falls on a widely varying calendar date, i.e., from 22 March to 25 April. Thus:—

Septuagesima Sunday occurs 63 days before Easter Sunday.

Ash Wednesday occurs 46 days before Easter Sunday.

Palm Sunday occurs 7 days before Easter Sunday.

Good Friday occurs 2 days before Easter Sunday.

Whitsunday occurs 49 days after Easter Sunday.

Trinity Sunday occurs 56 days after Easter Sunday.

It is to be noted that the Ecclesiastical calendar begins on a particular Sunday (the first Sunday in Advent, which is the fourth Sunday before Christmas Day, and, therefore, the nearest Sunday to 30 November) i.e., on a different calendar date each year.

The confusion in civil and religious life which results from all this variation of weekdays and calendar dates is astonishing. No one ever knows the weekday names of holiday calendar dates, or even some of the calendar dates themselves, without consulting a calendar.

(d) As a result of the last two defects described, it is necessary to have a new calendar each year. This involves the annual reprinting and sale to the public of a fresh calendar. If our calendar were a perpetual calendar, as it quite well could be (The World Calendar is a perpetual calendar), this annual renewing of the calendar would be unnecessary. Once printed, the calendar would be good for all future years.

REFORM OF CALENDAR

Thus three important ways in which our calendars could be improved are:—

1. The first half of the year (in months) should have the same number of days as the second half, and all the quarters should similarly be equal.

2. Calendar dates should have the same weekday names each year.

3. Easter Sunday should always fall as nearly as possible on a fixed calendar date. If calendar dates had the same weekday names every year it would be possible to arrange for Easter Sunday to fall on exactly the same calendar date each year.

It is interesting to notice that in the calendar reform bill brought before the United States Congress nothing is said about fixing the date of Easter. The World Calendar Association states that this is because The World Calendar is a secular calendar, fixed and perpetual. Many holidays would be automatically stabilized as to day and date, but no attempt is being made by the Association to fix movable feasts, whether they be the Easter of the Christian religion, or the holy days of the many other religions of the world. This is the prerogative of the religious authorities concerned. The experience of the Association shows that any stabilization of religious holidays, or national holidays, must be done by the authorities involved in that particular day, and the officials of the jurisdiction involved. Any other course would militate against calendar revision, as probably hap-

pened in England in 1928, when the good friends of calendar reform really worked against its accomplishment through their insistence on Easter stabilization being a part of the reform. Practically all Protestant denominations have gone on record as favoring stabilization of the calendar including Easter, and the Vatican is emphatic that the fixing of Easter is definitely within its own prerogative. The Roman Catholic Church is agreeable to the principle of calendar reform. It sanctioned the introduction of legislation in the United States of America for the adoption of The World Calendar. It has indicated that when a permanent calendar has been established, it will, of its own volition, undertake to stabilize Easter.

THE WORLD CALENDAR

A glance at The World Calendar, which is the only reformed calendar possessing any possibility of universal acceptance, shows the following characteristics:—

(a) The new calendar year will have 12 months, as in our present calendar. No change will be made in the names of the months. An alternative system of calendar reform, in which it was suggested that there should be 13 months of 28 days each, has been abandoned.

(b) The new calendar will have four quarters, each with the same number of days. To ensure this, the first month of each quarter will have 31 days, and the other two months 30 days each. Each quarter will then have exactly 91 days, or 13 weeks, or 3 months. Thus January will always have 31 days, February 30 days, March 30 days, April 31 days, and so on. It is obvious that the first six months, or first half of the year, will have the same number of days, i.e., 182, as the second six months, or second half.

(c) In the new calendar, calendar dates will always have the same weekday names. This will make the calendar a perpetual calendar. In adopting the new calendar it will be arranged that 1 January falls on a Sunday. Hence 1 January will always be a Sunday, as also 1 April, 1 July, and 1 October. Christmas Day will always fall on a Monday. An advantage of this is that it will make the Christmas and Boxing Day holidays fall immediately after a Sunday, making in each year for most people in New Zealand four consecutive holidays. A person whose birthday falls on 3 July would always celebrate it on a Tuesday.

(d) No change is proposed in the present rules for leap year, which is sufficiently accurate for ordinary purposes. Hence the new calendar year will consist of 365 days, and every fourth year 366 days. Thus, with the months and days as described, i.e., four quarters of 91 days each, there will be in each ordinary year one day unaccounted for, and in each leap year, two days. To overcome this difficulty, the new calendar includes

every year a day which has no weekday name, but would be called Year-End World Holiday, and would have the calendar date W December, because it would be added to the calendar at the end of the year. A similar day, to be called Leap-Year World Holiday, would be added to the calendar in each leap year. Leap-Year Day would have the calendar date W June each fourth year. Both Year-End Day and Leap-Year Day would be universal holidays. People travelling across the Date-Line may have two Saturdays running. However, this arrangement would probably give rise to confusion, and so it is not included in the American bill.

(e) It is obvious that, in the new calendar, 13 days of each quarter would be Sundays, and 78 days always weekdays. Also, every month would have the same number of working or weekdays, i.e., 26. The 31-day month would have an extra Sunday. This arrangement would be of considerable advantage in business.

(f) There would be no dislocation of civic or religious life in introducing the new calendar, if it could be adopted at the beginning of a year, when 1 January of our present calendar falls on a Sunday. This will be the case on 1 January, 1950, which is, therefore, regarded as the ideal date for the adoption of The World Calendar, and is the date proposed in the bill before the United States Congress. Furthermore, this is the end of the half-century mark.

(g) Four days of our present calendar will disappear in The World Calendar, i.e., 31 March, 31 May, 31 August, and 31 December. While three days not on our calendar appear in The World Calendar, i.e., 29 and 30 February, and 31 April; 31 December could be considered as equivalent to Year-End World Holiday. Leap-Year World Holiday would also be an extra day every fourth year.

REASONS FOR ADOPTION OF THE WORLD CALENDAR

The bill before the United States Congress states that The World Calendar should be adopted because:—

1. As a result of protracted and exhaustive study, general agreement has been reached that all nations need an improved and perpetual calendar.

2. Because public and private opinion in the United States and other nations of the world demands governmental action to revise the calendar in such a way that, retaining astronomical accuracy, it will be mathematically and otherwise scientifically correct, unchanging, and holidays will be fixed so they will no longer jump through different days of the week.

3. Because fourteen nations have officially approved adoption of the proposed World Calendar, under the aegis of the League of Nations.

4. Because the adoption of The World Calendar represents the irre-

ducible minimum of change consistent with the maximum benefit.

5. Because The World Calendar will facilitate comparative statistics and tables, computations of interest, budgets, pay rolls, costs, and the many other operations of which time is of the essence.

6. Because it will facilitate train, ship, and plane operating schedules and time-tables, and the co-ordination of communications.

7. Because it will be a very great convenience by having the dates of anniversaries and holidays fall on the same day each year.

8. Because it will facilitate the operation of those whose business is especially affected thereby, all to the benefit of commerce and industry, educational, social and fraternal organizations, scientific bodies and others, including each of us individually.

NEW ZEALAND AND THE WORLD CALENDAR

Some years ago the Australian and New Zealand Association for the Advancement of Science set up a Calendar Reform Committee, and Mr. I. L. Thomsen, Director of the Carter Observatory, Wellington, was appointed New Zealand representative on this Committee. Mr. Thomsen has had much correspondence on the question of calendar reform with Dr. Allen, of the Commonwealth Solar Observatory, and also with the officers of The World Calendar Association of New York City. It is the idea of Mr. Thomsen to set up a committee representative of the Chamber of Commerce, the Public Service, Trade Unions, Churches, the New Zealand University, and Scientific Organizations, to consider the matter, and to make representations to the Government.

However, in the meantime, the Council of the Royal Society of New Zealand, has referred to member bodies the question of "Calendar Reform" raised by a resolution of the Otago Branch, as follows:—

"The Otago Branch of the Royal Society of New Zealand asks that consideration be given to the question of calendar reform at the Annual Meeting, and that the branches be asked to study the proposed 'World Calendar,' and to report back to the Secretary whether or not they favor its adoption in place of the present Gregorian calendar."

The Auckland Institute and Museum, the Auckland Branch of the Royal Society, has duplicated the proposals of the Otago Institute, and sent copies out for an expression of opinion to quite a number of societies and bodies which were considered to be interested in, or possibly affected by, the introduction of the new calendar. The replies received are varied. The Auckland Suburban Local Bodies' Association advises "that only three of its member bodies replied, all expressing approval of proposals." The Auckland Education Board considers "that it could accommodate itself to any change

made and universally desired." The Reverend J. Douglas Smith writes "that the National Council of Churches could see no reason why any strong objection should be taken to the proposed calendar. We have no interests which would be prejudiced if it were adopted, so long as the question of a fixed Easter is not involved." Mr. W. Ashton, Secretary of the New Zealand Federation, Auckland, advises "that the Auckland Trades Council would be willing to attend any conference that might be called." The New Zealand Farmers' Union is of the opinion "that at the moment they have had insufficient time to voice any opinion on the matter." The Right Reverend Dr. Liston advises "that the proposals for Calendar Reform, based on a fixed Easter, have been studied by Catholic scholars in almost every country of the world for many years past." He mentions an official statement of high authority made several years ago to the effect that a reform of the calendar creates no difficulty for Catholic teaching or practice.

Dr. Gilbert Archey, Director of the Auckland Institute, has sent out invitations to representative bodies and others interested to attend a conference to discuss calendar reform, the conference to be held probably in February or March, 1948. The Council of the Auckland University College has agreed to send a representative, Mr. C. R. Ford, to such a conference. No doubt other interested bodies will follow suit. It is considered that a full report on the discussion itself, published in the press, would contribute to public understanding of the problem of calendar reform.

CONCLUSION

And there the matter rests, so far as New Zealand is concerned. To sum up, it can only be said that comparatively little has been done in New Zealand in regard to this question, and that the subject has not been discussed by Parliament. In the meantime an effort is being made, under the auspices of the Royal Society of New Zealand, to test the feeling of the public and to educate the people in regard to calendar reform and the adoption of The World Calendar. Probably it is true to say that New Zealand, being a small country, is not likely to go in for a new calendar on its own account, but is waiting the lead of Great Britain, and other countries, such as the United States, and that if these countries were to adopt The World Calendar, New Zealand would not be long in following suit.

CALENDAR CONTRAST CARDS

CALENDAR Contrast Cards for the year 1948 are available. A supply will be gladly provided free. Write the Association for them. Kindly state how many you need. They stimulate interest in The World Calendar.

HAYDEN PLANETARIUM SHUTS DOWN UNIVERSE FOR REPAIRS

In these times of widespread talk of completely shattering the earth, destroying civilization and annihilating man by atomic bombs, The New York Times reported in a lighter vein that the Hayden Planetarium "shut down the universe for a new paint job." The story is reprinted here by reason of its merits as writing, and as a more cheerful and constructive attitude worthy of emulation.

THE soft-voiced man in the dark topcoat stared heavenward. He spoke like a man bemused, which he was.

He said: "To paint the sky over Manhattan Island—doing it as a spray job with twenty-five gallons of special paint and twenty-five gallons of paint-thinner, and using around thirty-five union painters, say, that will cost around \$3,000."

He pointed toward the vault's zenith. He said: "We'll have to clean up the whole solar system—sun, moon, the planets, Milky Way; no small job."

He figured quietly on a small pad in the stillness of the cosmos. He muttered: "To dust and polish Uranus—that will cost only a few dollars. Repainting the Zodiac—Leo, Aries, Virgo and that lot—that may run a couple of hundred dollars."

He turned to Fred Reiser, technician, and said: "We haven't done a paint job on any of our stars since 1939, have we Fred?"

Mr. Reiser shook his head glumly. "That earth war cut in on us, sir," he explained apologetically. "Couldn't get the men nor that special Heaven paint."

The soft-voiced Hayden Planetarium curator, Gordon A. Atwater, nodded, still deep in thought. He said quietly that it was a shameful thing to have a human quarrel on a fifth-rate planet, like Earth, let the whole Universe run down.

Mr. Atwater said the planetarium will close after the Sunday evening performance. Working the paint crews and repair men twenty-four hours a day, he figured, the universe should be ready for the "Easter Star Parade."

Mr. Atwater said, "It will take five days and \$15,000 to \$20,000 to create a brave new Universe."

A reporter asked: "Have you figured, Mr. Curator, what it will cost to get Venus scrubbed down?"

"Sir," he said, "no gentleman would put in a bill for that."

NO BLANK DAYS IN PROPOSED WORLD CALENDAR

By Arthur J. Hills

The Chairman of the Canadian Affiliate of The World Calendar Association, International, Mr. Arthur J. Hills, wrote a letter to the Montreal Daily Star late last summer. It is here reprinted as an interesting defense of such adverse comment as is made, however infrequently, on The World Calendar.

AS Chairman of the Canadian Affiliate of The World Calendar Association, which by action of the delegation from Peru (one of 14 nations endorsing The World Calendar through the League of Nations in 1937) has its calendar reform proposal before the Economic and Social Council of the United Nations, I would like to say that there are no blank days in The World Calendar. This is a 12-month equal-quarter, perpetual calendar designed to correct defects in the present Gregorian calendar, which as the head of the delegation from China said in support of the Peruvian resolution "lacked a certain degree of stability, order and permanence," adding, "an improved calendar is surely desirable for the world as a whole."

As the representative of Norway said in seconding the motion of Peru, "This is not a new question . . . All of the preparatory work has been done; the merits of the new calendar have been fairly discussed, and quite a series of governments have already accepted The World Calendar."

Opposition from some Rabbis is not new either. Canada was among the first to express dissatisfaction with the present calendar in 1931, being one of the four nations to vote for a perpetual calendar, when two calendar reform plans were put before the 44 nations represented at the Fourth General Conference of the League of Nations on Communications and Transit at Geneva. Both plans approved as worthy of being put before the Conference had the feature of the intercalation of the 365th day every year, and intercalation also of the 366th day in leap year. An Italian priest, Abbot Mastrofina, in 1834 devised this inseparable part of a calendar which has dates fixed in perpetuity.

Intercalation prevents the shifting of days which take place at the beginning of every year. There is a shift of one day following ordinary years because of the 365th day being one day more than the 52 weeks, and in the year following a leap year there is a shift of two days. It is this shifting

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of days affecting all dates in the year that the fixed calendar avoids. It is due to the shifting of days from the 1st to the 7th of September, during which spread Labor Day may come, that requires every educational institution in Canada and the United States to get out a school program every year. It is why the 24th of May occasionally comes—as it did this year—on Saturday when school children miss their holiday. It is why Dominion Day comes on Tuesday, marooning Monday, and in fact all the vagaries of the calendar are caused by this shifting of days.

The World Calendar being fixed avoids all these vagaries. It also evens up the quarter years and makes an orderly arrangement of months—31 days in the first month, 30 in each of the next two. This plan also equalizes the working days, each month having 26, plus Sundays.

It is purely a civil calendar and makes no attempt to deal with Easter or interfere with any other religious observance.

The Jewish calendar has only religious effect. Prominent Rabbis have expressed the view that if The World Calendar is adopted the Jews would adapt themselves to the civil calendar, stating that they have done so before and would do so again if necessary.

There is a religious sect known as Adventists, and some distinguish themselves as "Seventh-Day" Adventists, who oppose the change because they claim it would make an eight-day week between their "Sabbaths" once each ordinary year, and twice each leap year. This sect does not include one-quarter of one per cent of the population of Canada. There are more Doukhobors and more Mormons in Canada than Adventists. The Jews—and not all of them oppose the calendar change—form only 1.46 per cent of our population.

These small sects should not be allowed to interfere with or prevent a great civil advance.

When the draft resolution of the delegation from Peru was introduced at the meeting of the Economic and Social Council of the United Nations in March of this year, the Russian delegation questioned the importance of the work of the League of Nations in the field of calendar reform which was referred to as "studies." The acceptance of the Russian position would be to nullify not only the work of the League of Nations, but that of the International Labour Office (including special labor conferences) and the work of the International Chamber of Commerce. The U.S.S.R. has made several calendar changes in Russia since the Bolsheviks first adopted the Gregorian calendar.

Some Rabbis opposed calendar reform at Geneva in 1931, in 1937, and an article indicates continuing opposition. Again let me say that

there are no blank days in The World Calendar and it would be a misrepresentation to say that any blank days are included in the reform proposal of The World Calendar Association. Certainly too, adoption of The World Calendar would not in effect do away with the Jewish Sabbath. The Jews in a free country could observe their Sabbath in accordance with their own calendar, when and how they wish.

As the Canadian Congress of Labour expressed it in including a recommendation for its adoption in their memorial to the Dominion Government in March, the perpetual World Calendar "is the simplest of all calendar reforms, and has been approved by fourteen nations, as well as by the International Labour Organization."

Canada, it is felt, will not at this date withdraw from a position, expressed as early as 1931, of being in favor of calendar reform.

If the matter of a World Calendar can be advanced, as proposed in the Peruvian resolution, through the Economic and Social Council, then going to the General Assembly, its adoption on 1 January, 1950 (when the two calendars coincide) on a virtually world-wide basis would usher in the second half of the century through agreement by the United Nations on at least one important feature of our day-to-day life.

DR. ARTHUR M. HARDING IN MEMORIAM

DR. Arthur McCracken Harding, retired President of the University of Arkansas, died at the age of 63 at Fayetteville City Hospital on 24 December, 1947. Born at Pine Bluff, he received his Bachelor of Arts degree from the University of Arkansas in 1904, a Masters degree in 1913 and Doctor of Philosophy in 1916 from the University of Chicago.

Succeeding J. William Fullbright, now United States Senator, he became the President of Arkansas University in 1941 and continued until 31 January, 1947.

In becoming a member of The World Calendar Association he wrote: "When I look at your calendar and at other perpetual calendars which have been worked out I wonder how long the people of the world are going to be willing to live under the out-of-date Gregorian calendar. As long as we use this old calendar we are going to have to spend much time studying perpetual calendars in order to determine the days of the week of certain dates both in the past and in the future.

"The World Calendar—the best perpetual calendar I have ever seen—would take care of the future."

CALENDAR

By Stephen A. and Margaret L. Ionides

A book titled Stars and Men was the collaboration of a man now deceased who was an engineer by avocation and an astronomer by avocation, and his daughter with a gift for expression. It was written for the general reader. This excerpt is reprinted because of the unique charm of the style.

*"The twelve-spoked wheel revolves around the heavens;
seven hundred and twenty children in pairs abide in it."*

THUS spake the Rig-Veda, a document so old that most of its words may have been uttered before the Sanskrit-speaking peoples started their long trek southward where they were to become the principal inhabitants and rulers of India. There can be no false interpretation of the passage quoted. Early commentators, fearful lest the common people misunderstand the figurative language of their ancestors, have left no room for doubt. The twelve spokes mark the twelve signs of the zodiac which the Sun follows in its yearly course, and the 720 children in pairs are the 360 days and nights in the year.

Between the day and the year stretches a long interval. This earliest passage shows only how early the two measurements of time were linked together in some sort of calendar. There is no record of the long struggle which must have taken place before they were related, nor of the adoption of the month as the intermediate unit when some other division of time was needed, because the year was too big for reckoning and the day too small.

It is not hard to reckon by days. Even when there is no certainty as to when days begin and end, they can still be told apart, and each morning a notch can be cut in a stick, Robinson Crusoe fashion, to keep a record. Yet even in counting days, confusion may arise. Mark Twain in *A Tramp Abroad* gives a wonderful example.

He and his friend started out to climb the Rigi. Their guide-book informed them that the trip would take three hours. They could sleep in the hotel at the top, and the next morning an Alpine bugle would wake them in time to see the sunrise. There was something very romantic about the whole trip, they thought. The hotel guests were supposed to flock out wrapped in their bed clothes to see the grandeur of dawn. A bugle was blown in the evening too, but sunset was considered a minor and quite second-rate affair.

Actually the climb took three days, and they arrived in a fog so dense that they mistook the hotel for a precipice and sat shivering outside it for nearly an hour. When they finally went to bed they were exhausted and slept without stirring or turning until the booming blasts of the horn rang out. Then they jumped up, pulling the bed clothes around them and rushed to the top of a scaffold which stood on the mountain's pinnacle. The Sun was already in the sky but the sight was truly glorious, and they regarded it with much awe until one of them happened to notice that the Sun was lower than it had been a few minutes before. Evening was at hand, and they, beautifully arrayed in blankets, were furnishing the chief spectacle.

A friend of mine was working "night-shift" from midnight to eight o'clock in a gold mill near Kalgoorlie, West Australia, for a week. He returned on Saturday morning to his quarters where I also had a room, and told me that he was going to bed so that he would be fresh for Saturday evening. His landlord woke him up and told him it was nine o'clock. He said, "It can't be. It's daylight." Great was his disgust when he found that it was then Sunday morning.

Before the invention of calendars the recovery of such a lost day must have been quite a problem. Even in the twentieth century, with diaries, a day can be lost. I have kept a diary ever since I was a boy at school; but in 1906, on a trip to Old Mexico I lost a full day on the train. In a wild part of Sonora we were put up at the mine by the caretaker and his wife, an Indian. They had no calendar. They hardly knew the season of the year and had missed several Christmases. Of course I set them right. When I returned to the United States, an obstinate friend argued with me as to the day of the week. I thought it was Tuesday. He couldn't possibly have been right, of course, as I kept a diary and knew, but he produced a morning paper, dated Wednesday, and presumably that is the one thing in the morning paper which does not lie. Somewhere on the train I had completely lost a day, and the minekeeper and his wife may still be a day off if they have kept track from the record I gave them.

Anyone may recover a date without much difficulty, if he carries the inevitable *Nautical Almanac* in his baggage. He need only take a meridian altitude of the Sun, and then find out the date of the declination which will give the result nearest to the latitude, if (as is most unlikely) he knows the latitude to begin with. If not, he must find his latitude first from a star or, if he cannot wait for that, he should replace his lost date by the morning paper.

Such methods for determining the day are recent, and they presuppose a certain amount of what passes for civilization. They assume too that we know the correct number of days in the year. The ancient peoples

could compute roughly by their gnomon sundial, watching from its longest shadow to its longest shadow, and counting the days in between; but 365 is a large number to keep constantly in mind. There was a shorter, much easier method of reckoning, probably chosen even before the length of the solar year was calculated. The Moon seemed placed in the heavens for that precise purpose, apparently willing and anxious to please. What could be more natural than "meeting at the next full Moon," or beginning to count the days over again at the next dark one? Almost all the extant ancient calendars depended upon the Moon's motion. There were Runic calendars with four notched sides, three months on each; there were Egyptian blocks of sandstone, with holes and a peg to mark the place.

The very name "calendar" refers to the monthly division. In Rome, from early times, the people were summoned to the capitol where an announcer proclaimed that the new month had begun. So the name for the first day of the month came from the Latin word "calare" to call, and was therefore named a "Calend." On that first day all debts were payable. Therefore the account books were called calendars. A calendar told the debtor in advance which day he had to keep his engagement; the man who lent the money needed no such reminder. It was amusing to note that the dog grew from the tail, so to speak, and the end pages which are left for accounts in the modern diaries are the original of the calendar.

There is no doubt that the revolution of the Moon around the Earth seemed to form a convenient dividing point, but unfortunately the smile of simplicity was a siren beckoning, leading all calendar makers into the vast whirlpool of fractions and endless complications, whither they seemed only too ready to follow.

So there was the shadow of the gnomon lengthening in winter and shortening in summer, a record of the seasons and the time of the year; and there was the Moon showing different phases to the Earth, much more convenient, much easier to reckon; and the two never agreed.

Not much later than the Rig-Veda, as ancient chronology goes, Helios, the Homeric god of the Sun, carried a wrathful tale to Zeus. "I cry vengeance," he stormed, "against the crew of Odysseus, the son of Laertes. Insolently have they slain my kine, who were the joy of my eyes, whenever I mounted the starry sky and swung back again from Heaven to Earth."

The herds of the Sun, according to Aristotle, numbered seven hundred head in strength, and they represented the three hundred and fifty days and nights of the lunar year. No wonder the Sun was angry when his cattle were slain. Zeus managed to calm him a bit, persuaded him to keep shining over the Earth, and promised "to smite the swift ship with a silvery thunderbolt and shiver its timbers amid the wine-dark sea."

Whether the story in the *Odyssey* is symbolical or not (and it probably is not) the vengeance of Zeus should have served as a warning to all men who would change the calendar.

Already a discrepancy had arisen. There were seven hundred and twenty children in the Sanskrit wording—there are only seven hundred cattle in the Greek. The difference is between the first estimates of the solar and lunar years. For a great many purposes the Moon did well enough; no one minds much when debts are paid so long as the payments come regularly; but one can imagine the howls which the farmers of any age would send up if the calendar told only when debts were due and never the right time of year to sow their seed or harvest their crops—which is the popular way of designating the equinoxes and solstices.

It is really desirable that the equinoxes should stay at practically the same date every year; otherwise why bother with a calendar at all? This relationship is the ideal toward which all calendars should aim; the marking of the routes of the heavenly bodies and their corresponding influences upon the Earth. In China one of the three state calendars was always offered back to heaven at the end of a month, as the appropriate gift to the place from which it came. That so rude an approximation as the Chinese calendar should ever be acceptable to the heavenly bodies is in itself a marvel, but undoubtedly they took the spirit rather than the letter of the offering.

Almost every calendar started with a lunar year, and then slowly, gradually came to the solar instead. All primitive men thought that somehow the Sun and the Moon must harmonize, that the fault was in human calculations; it could not be in the celestial bodies themselves. So the whole history of the calendar is an effort to bring order out of disorder—at attempt that was valiant, ingenious but absolutely futile. The result was a series of even more complicated reckonings called cycles, of which more later—but no amount of mathematics could ever quite reconcile the periods of the Sun and the Moon. The lunar month of 29.531 days, and the solar year of 365.242 days are incommensurable.

The number of days in the lunar month and the solar year are both fractional. If the larger could be divided by the smaller evenly it would be almost a miracle. It cannot and even if it could, neither of the numbers remains quite constant. If there were concordance at the beginning, it would be upset at the end. In other words, all the ancient peoples were trying to bring about a marriage, of which nature prohibited the banns.

From the very nature of the case any easy method must turn out at long last to be the most complicated. The Egyptians tried simplicity and got the common people into serious trouble as the result. Their calendar consisted of twelve months of thirty days each. Later they added five

intercalary days which were supremely unlucky and not to be counted as real days at all. At Philae, until recently, there were three hundred and sixty bowls to be filled daily with milk; and at Acanthus there was a perforated cask into which one of the three hundred and sixty priests poured water from the Nile each day. So insistent is tradition upon its own life.

Even with the addition of the five unmentionable days, the Egyptians were far from possessing an accurate calendar. The end of each year left them a quarter day short and presently these shortcomings began to accumulate. After a hundred years, twenty-five days were lacking; the calendar began to be out of pace with the seasons; everything was wrong, and it went from bad to worse until at the end of 1,460 years the Egyptians found that a whole year was lost. At that point they concluded what they called a "Sothic Cycle."

With this system the New Year could begin on every possible day, and the date was always vague; therefore the year came to be known as a "Vague Year." No one in Egypt except the priests could possibly figure the thing out; but the priests enjoyed their power to the full. The kings were their only rivals in knowledge, and the priests seem to have put a clause in the coronation oath of a new king that he would not attempt to provide a calendar which the people could understand.

The year fared better in Babylon though there too it started and ended with the Moon—354 days in all. But the priests were more scrupulous, or perhaps less powerful, and they added an extra month now and then, instead of waiting until they had lost a full year. Moreover Babylonia had the luck to possess a real astronomer, a man daring and clever enough to calculate the exact time of the year to within half an hour of the present accepted length. From this their scientists worked out another group of cycles, eight, nineteen and twenty-seven years to harmonize the movements of the Sun and Moon. The Saros was a lunar calculation, and the Saros was no mean achievement for any nation; but eclipses can be reckoned by the Moon which is responsible for them, far better than can the year over which the Moon has no influence.

The Egyptian calendar was over-simplified, and the Babylonian too lunar. It took the Greeks to produce a variety which would suit any taste, from the Sun to the Moon and back again, simple and complex, New Year's Day at the spring or fall equinox, New Year's Day at the summer and winter solstices—a motley crowd of calendars, not one of them very efficient, each one the property of some little city-state unwilling to combine with the others. Perhaps the Greeks feared the wrath of Helios if they tampered with his cattle, even by increasing the numbers instead of decreasing them; perhaps they were just unconcerned. A traveler going from Salonika to Crete, stopping at Athens and Sparta and all the little

cities on the way, must have had to change his day, his month and his year, rather as we change the hours on our watches when we cross America. The wonder is that anyone ever arrived on time for the Olympic Games.

Following the Egyptians, the Greeks divided their months into thirds: ten days in the first, ten or nine in the second, and ten in the third. The last third was numbered backward according to the number of days lacking until the end of the month. They seemed to have a genius for creating confusion, in spite of the efforts of their philosophers, who were undoubtedly thought too academic and abstract for the taste of common people and politicians.

Athens started with a lunar calendar, but someone, probably Solon, adjusted the time reckonings to fit in with the Sun. Even then the calendar was still imperfect, with twelve months, alternating twenty-nine and thirty days, which made up a total year of 354. Every third, sixth, and eighth year was made "great" by an additional month. With this arrangement the calendar never wandered away from the Sun for more than eight years at a time. Solon's calendar could have stood further improvement, but as Greek calendars went it was not so bad; and one wonders if the statesman included it in his famous remark that his laws were not perfect, but were the best he could induce Athens to accept.

Two hundred years after Solon, in the time of Pericles, an astronomer named Meton introduced another improvement which he could not persuade the populace to adopt at all, and which remained in disuse for nearly a hundred years. It was a cycle of nineteen years, after which the new Moons recur on the same days of the year. In the Metonic cycle there are two hundred and thirty-five months with an error of only a few hours. The concordance could be made practically perfect by dropping a day from each fourth cycle, an improvement which may have been adopted in later times still.

Not until the third century B.C., did anyone begin to take great interest in a system of chronology. Customarily, events were dated as before or after some great occurrence, "before the flood" or "three years after the Persian War," much as a native of San Francisco still speaks of something that happened "before the fire" and as the whole modern world relegates war." For solemn documents the chroniclers named the archons who held office in Athens, or the date since the beginning of a king's reign in Sparta, as acts of parliament today carry the year of the king's reign in addition to the more common A.D. date. But in the third century B.C., the historians began to feel the need of some better method for specifying past dates; a system which would correlate the kings of Sparta with the archons of

Athens, and perhaps also with the conquerors from Macedonia. The most famous events common to all important Greek states were the games held once every four years at Olympia. Consequently the historians evolved the system of reckoning by Olympiads. The games were supposed to have been originated by Herakles; but the Dorian states, which had not been admitted until afterward, never quite liked that idea; and anyway the oldest extant records dated from what we call 776 B.C. That year therefore was generally accepted for the beginning of the new chronology.

Legend says that Romulus started the Roman calendar, and perhaps legend meant to pay a compliment, but it was a doubtful one at best. The Romulus calendar consisted of only 304 days divided into ten months, a decidedly mysterious arrangement for which there seems to have been no reason whatsoever. It has left its relics, however, in the names for the last four months of our year: September, October, November and December were the last four months of the Roman ten. What happened to the remaining sixty-one days, if anything happened to them at all, nobody knows.

The year was supposed to start at the spring equinox, but in the days of Romulus it could not have started even approximately on time more than once in twelve years. This arrangement was worse than the Egyptian priests dared to suggest; and the Romans—always more practical—would not stand for it.

Hardly more than a year after the death of Romulus, his successor, Numa Pompilius, the Sabine who was elected king of the Romans, undertook to straighten out the errors of his predecessor. He added two months, Janus, after the double-faced Roman God of beginnings, at the start; and February (a word from his own Sabine tongue) at the end. A century later the names for the months were reversed, and the year from then on began on the winter solstice.

From the beginning February was abused. It was cut to twenty-eight days. When Numa Pompilius added that month, he probably chose the name from his own calendar. And, as almost all primitive peoples name seasons and months after their occupations, so the abuse of February may have come from the Sabine word meaning "cleanliness." The Romans had employed cave-men tactics when they carried off the Sabine women to be their brides; but even a stolen bride will try to cling to old customs habits, customs and even whisky into that strange and remote epoch, "pre-and clean house when her mother taught her. No wonder the Romans thought that the less of that month the better. Anyway February was abused.

In order to approximate 465 days in the year, the Romans were forced to add extra days at some time; and what time could be broken up better than that objectionable month, February? They inserted a month of twenty-three days each second year, and a month of twenty-two days each fourth year between the 23d and the 24th of February. In this way the men had a rest from house-cleaning, and the year became on the average $366\frac{1}{4}$ days. To correct the excess an intercalary month was omitted when necessary. The whole business suggests cutting a movie in the middle, having a vaudeville turn and then finishing the film.

From the time of Numa the calendar was entrusted to the Pontifex Maximus, the highest dignitary of the priestly college. He had to observe the first phase of the Moon, and announce its arrival to the Rex Sacrorum, who in turn summoned the citizens to a place in front of the capitol where they made sacrifice, proclaiming that the new month, the Calends, had arrived. What happened if the weather remained cloudy for a week is not revealed. Probably the men who had lent money kept track of the days. The Pontifex Maximus had the further duty of telling the people how many days were lacking until the Nones, which came on the 5th or 7th (depending on whether the month had twenty-nine or thirty-one days) or the Ides, which were the 15th or 17th accordingly. There seems to have been a definite relationship to the first quarter and the full Moon in these divisions. No one could ever ask any person as dignified as the Pontifex Maximus to get up in the small hours of the morning and observe the last quarter. That therefore was simply omitted.

This entrusting the calendar to a single person, and a pompous one at that, had its serious disadvantages. At a friend's request he could easily announce that there would be an extra month; and it is too be feared that the Pontifex Maximus was not above bribes. By the beginning of the first century B.C. the whole calendar was in a hopeless muddle.

Then in 63 B.C., a rising young Roman was elected to the post and went after his duties with a will. Julius Caesar was no astronomer, but he was statesman enough to know the value of expert advice, and he engaged the philosopher and astronomer Sosigenes to help him. At first these two tried to adjust the existing calendar, but it was ninety days out of tune, and they soon found that something desperate was needed.

Something desperate was done. Julius Caesar was no man to balk at drastic remedies. Sosigenes had told him that the spring equinox should always fall on the 21st of March, and that the year should be exactly $365\frac{1}{4}$ days long. To accomplish this change the old lunar months had to be abandoned; the years were then the same length except that once every

fourth year an extra day was inserted in February to take up the quarter days.

Having made all the necessary computations and calculations, Julius Caesar then proceeded to put them into effect. There followed the year which we now call 46 B.C. At the time it was universally designated the "Year of Confusion" by Caesar's enemies, and the "Last Year of Confusion" by his friends. It was 445 days long—a general muddle in which no one knew what anything was; but when the first day of January 45 B.C. dawned, the year was straight with the seasons again, and just as an extra flourish the seventh month bore the name of the man who had brought about the change* One year and a quarter later, on the Ides of March, Julius Caesar was assassinated, and Brutus quite justifiably said that he was ambitious. Brutus was an honorable man.

The good that Julius Caesar did was not interred with his bones, but lived after him for over fifteen hundred years. In spite of his efforts all was not perfect yet. To begin with the pontiffs grew careless again and added an extra day every third year instead of every fourth. Caesar Augustus remedied that, and decided that he needed a month named after himself too. He chose the eighth month, called it August, and for two reasons added a day stolen from September*. He was not going to have his month any shorter than July, and he believed in the luck of odd numbers. "And what?" asked the sarcastic Tiberius, when he was offered a similar honor by the Roman Senate, "Just what is going to happen when there are thirteen Caesars?"

The reign of Augustus saw one more addition of the calendar system, but this was of a different nature. In near-by Sicily, in the Alexandrian parts of Egypt, and on the mainland of Greece itself, historians were reckoning years by Olympiads. More and more Rome was coming into contact with the older civilization. The culture of Magna Grecia and Athens was beginning to exert a great influence over the Roman minds, and the ways of Alexandria had become a common subject for gossip in Rome, ever since Caesar and Anthony found the queen of that city so completely charming. It was disgraceful to Roman pride that they were still numbering years by the consulates in office instead of by a good historical chronology. After a great deal of discussion the historians agreed on the legendary date of 753 B.C. for the foundation of the city, and the beginning of Roman history.

Seven hundred and fifty-three was a good date, which made Roman history almost as old as Greek, and moreover the progression of the numbers makes it easy for us to remember, but there is something very curious about it. The Romans had loved to tell that Numa Pompilius had studied

under Pythagoras, but Pythagoras lived in the sixth century not the eighth, and Numa was elected king of Rome only a year after Romulus died. There is a century and a half missing somewhere and the most persistent Roman pride cannot account for it. Anyway that year was chosen, and from then on all events were dated from the Foundation of the City; the historians worked back to redate other events, and the initials A.U.C. (Anno Urbis Conditae, in the year of the Foundation of the City) were added to give proper reference.

Official documents of the United States today use the same system, dating from 1776, "in the blankth year of the Independence of the United States." The system ranks on a par with the English Parliamentary dating; both are ornamental and absolutely useless.

In the fifth century A.D., Dionysius Exiguus, a Roman monk, proposed another system for chronology, using the birth of Christ as a basis, and numbering all years as before or after that date. Just how he proposed to do it is not certain, and we may be quite sure that he did not suggest the anomalous terms which we now use, the English B.C., "Before Christ," together with the Latin A.D., "Anno Domini." The Venerable Bede is said to have used some such initials but the first extant use of them does not come until the thirteenth century.

Too often the men who composed ancient genealogies hoped to trace their line back to some remote ancestor—hardly more than legendary by the time that family trees were composed—and naturally all the less worthy men were forgotten or skipped in the process. Plato discredited the genealogies of his own time, and the Biblical lists are almost notoriously at fault, long-winded though they seem to be. Apian records four dates for the beginning of the world by which he probably meant the birth of Adam plus six days.

	Days	Years
From Adam to Christ according to Alphonsus.....	121	6,984
From the creation of the world to Christ according to the 70 translators		5,199
From the start of the world to Christ's coming according to Albumazar		5,328
From the beginning of the world to Christ's birth according to the Hebrews		3,952

More than the records of eclipses would be needed to reconcile that variety of dates. A solstitial temple built by Adam would have been of great assistance.

STATEMENTS BY EDUCATORS

This compilation of excerpts from the statements by educators lists their position at the time of their pronouncement.

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| JAMES TRUSLOW ADAMS,
Historian. | The World Calendar appears an enormous improvement. |
| JANE ADDAMS, | I should be happy to aid in your undertaking. |
| E. J. ASHBAUGH,
Dean, School of Education,
Oxford, Ohio. | The change is so slight and the advantages so apparent it seems strange it cannot be made readily available. |
| F. BOLTON,
Librarian, Yale University. | I hope the new calendar can be put into use very soon. |
| ROBERT BOREMAN,
Professor, Carnegie Institute
of Technology, Pittsburgh. | The <i>Journal of Calendar Reform</i> has convinced me of the desirability of a revision of the calendar. |
| CALVIN B. BRIDGES,
Carnegie Institution, Wash-
ington, D. C. | Its advantages are such as to call for its universal adoption. |
| S. W. CANADA,
Registrar, University of Mis-
souri, Columbia. | It would seem that nothing further need be said in behalf of The World Calendar. |
| CARRIE CHAPMAN CATT, | I believe in all your ideas about the calendar. |
| HARRY W. CHASE,
Chancellor, New York Uni-
versity. | I have long felt some form of stabilization would be of advantage. |
| E. W. CHUBB,
Dean, Ohio University,
Athens. | All the arguments are in favor of the calendar re-
form advocated. |
| WILLIAM HOWARD CLAPP,
Professor, California Insti-
tute of Technology, Pasa-
dena. | This arrangement accomplishes practically every
desired end with a minimum of changes and ob-
jections. |

- E. C. COKER,
Professor of Astronomy and
Mathematics, University of
South Carolina. We are enthusiastic in our approval.
- J. ANTON DE HAAS,
Professor, International Re-
lationships, Harvard Univer-
sity. I am most heartily in favor of the movement.
- JOHN DEWEY,
Professor Emeritus of Philos-
ophy, Columbia University. Ultimately, all authorities agree, there will have to
be a change.
- A. VIBERT DOUGLAS,
Professor of Astronomy, Mc-
Gill University. It is felt everywhere that every day of the month
should occur each year on the same weekday.
- H. E. ENDERS,
Dean, School of Science,
Purdue University. I voted favorably on calendar revision.
- J. R. GILLEY,
Comptroller, University of
Toronto. I am heartily in favor of the reformed calendar.
- R. C. HUFFER,
Professor Beloit College,
Wisconsin. I have been stressing The World Calendar.
- C. W. HUNT,
Secretary, American Asso-
ciation Teachers College,
New York. I am convinced The World Calendar is desirable.
- EDWARD V. HUNTINGTON,
Professor, Harvard Univer-
sity. I am completely won over in favor of The World
Calendar of 12 months.
- S. C. LIND,
Dean, Institute of Technol-
ogy, University of Minne-
sota, Minneapolis. The new calendar would be a great convenience
which would obviate these difficulties for us.
- JOHN T. MADDEN,
Dean of the School of Com-
merce of New York Univer-
sity; President of Alexander
Hamilton Institute. The whole business of living will be content with
such conservative and practical readjustments as
suggested by The World Calendar.

- E. G. MEARS,**
Director, Summer Quarter,
Stanford University. I am very much in sympathy with the movement.
- C. M. MILES,**
Supervisor of Physical Edu-
cation in the State of New
York. Such a calendar would be a very progressive step.
- J. A. NEPRASH,**
Professor of Sociology, Frank-
lin and Marshall College. A new calendar would greatly simplify the statistical
and accounting work of business.
- A. M. NIELSEN,**
Professor of Geography,
New York University. Have long felt a uniform date measurement for the
world an important step that must be taken.
- EDUARDO POSADA,**
South American historian,
Colombia. I find this new project very proper and wise.
- CARL D. SMITH,**
Dean, School of Business,
Northeastern University, Bos-
ton. Calendar reform is both necessary and desirable.
- E. L. WHITSITT,**
Dean, Arkansas State Col-
lege, Jonesboro. I think the calendar dividing the year into four
equal parts is a good one.
- CHARLES CLAYTON WYLIE,**
Secretary Treasurer, Univer-
sity Association for the Study
of Calendar Reform. Our figures suggest an overwhelming growth of sen-
timent in favor of the 12-month equal-quarter re-
vision.

TESTIMONIAL LETTERS

YOUR influence can effectively be brought to bear at this time by writing letters to the Honorable George C. Marshall, Secretary of State, Washington, D. C., and the Honorable Trygve Lie, Secretary-General of the United Nations, Lake Success, New York. Send a copy of your letter at the same time to The World Calendar Association.

Voluntary expressions of opinion are an index of public opinion. Your letters will serve to register opinion and help determine the action of public servants.

CURRENT PRESS COMMENT

Best Minds Agree

Johnson City (Tenn.) Press

7 November, 1947

CALENDAR reform proceeds slowly.

The World Calendar Association has been urging the adoption of a World Calendar for years.

Such a calendar would present each year as the same perpetually.

In The World Calendar holidays are fixed and always fall on the same day of the week.

This revised calendar is balanced in structure, perpetual in form, harmonious in arrangement.

In the good old days, a monarch or high religious leader might obtain the opinion of technical advisers and then issue a decree by which the reform would be introduced into the country or group of countries subject to his authority. Those days seem to be gone forever, however. At least in the present democratic age the procedure is more complicated, so complicated indeed that nothing has been done about it, though many best minds are agreed we need a calendar reform.

United Nations Initiative

Reno (Nev.) Evening Gazette

4 November, 1947

NOW that the Economic and Social Council of the United Nations has decided to take up the question of revision of the Gregorian calendar, The World Calendar Association, which has been pressing for this reform for many years, has "perked up" considerably.

The League of Nations studied this proposed reform at various times over a period of 14 years, and although it did not come forth with explicit recommendations, it produced clearer understanding of the problem. Although originally there were several hundred proposals presented the League, two main types were eventually isolated. Finally, one single calendar, "The World Calendar," was submitted to the League Council by a delegation and approved by 14 nations.

The United Nations Economic and Social Council now has the opportunity of studying the League findings on The World Calendar. Certainly this 12-month equal-quarter calendar is far superior to the Gregorian calendar.

Modern World Need

Tiffin (Ohio) Advertiser

24 December, 1947

A PRIMARY characteristic of the modern world is the stabilization and uniformity of standards of all kinds. Few have not been modernized; yet the calendar in general use remains an archaic contrivance dating back to 1582, and indeed largely to Julius Caesar.

Pending before the United States Congress and the United Nations is adoption of the proposed World Calendar, a revision which will be perpetual. Each quarter of the year will have 91 days, 13 weeks, or 3 months. Each month has 26 weekdays, plus Sundays. Holidays are fixed as to day and date. Each year and quarter begins on Sunday and ends on Saturday.

Fourteen nations officially approved The World Calendar as long ago as 1937, following years of study through the League of Nations. Additional nations at the United Nations have indicated they will vote for the measure.

Paging Our Solons

Charleston (S. C.) Evening Post

23 December, 1947

THERE are now resolutions in both the House and Senate which aim to effect a reform that would eliminate the inconveniences, the irregularities and other drawbacks inherent in the present system of calculating the months and years.

The urgency in the matter lies in the fact that 1 January, 1950, would be an ideal time for making the change, for it is the earliest date on which the existing calendar and the new calendar would meet, the day being a Sunday.

EXCERPTS AND REVIEWS

It's Calendar Time

By WILLIAM J. DUCHAINE

From The Christian Science Monitor, Boston, Mass., 29 November, 1947

COMMERCIAL production of calendars began only slightly more than a half century ago, but the calendar itself, as an instrument for distributing time throughout the year, is centuries old. In fact, the name comes from the Roman Calends. And it was none other than the illustrious Julius Caesar who was responsible for Leap Year.

Caesar apparently was a man who had no patience for inconsistency or red tape. He found a discrepancy in the Roman calendar of his time in that the civil equinox differed from the astronomical by about three months, so that the winter months were carried back into autumn and the autumnal into summer.

Caesar consulted his trusted astronomer, Sosigenes, in the year 46 B.C., then issued a decree abolishing the use of the lunar year, thereby regulating the civil year entirely by the sun. He fixed the solar year at 365 days, 6 hours, which temporarily must have posed a knotty problem for the great Roman.

"Six hours too many," Julius probably said to himself. "We'll fix that. We'll make the ordinary year 365 days, and make a 366-day calendar every fourth year." Since then, 45 B.C. has been known as the first Julian year.

English history records that the bissextile year became known as leap year because of the reference to 29 February as a date that "leaps over." Sadie Hawkins Day in Li'l Abner's home town, Dogpatch, is likely an outgrowth of a law enacted in Scotland in the thirteenth century. The statute ordained that a maiden was privileged to propose marriage to any man she liked, provided he was not already betrothed. If the man refused, he was ordered to pay heart balm according to his means.

So long as one day follows another, clocks will mark our minutes and hours; calendars, our days and months.

From Adam to Atom

By JACK GREEN

From The Virginia Tech, Blacksburg, Va., 11 April, 1947

THE Ancient Egyptians were pretty smart boys. Long before the invention of the ball point pen they figured that a year lasted 365 days. With an eye to reelection, the high priests of that day decided to divide the year into twelve 30-day months declaring the five days left over as a year-end holiday. Have you ever seen the hieroglyphic meaning "hangover"?

We have a thoroughly distorted calendar that changes every year. Either we must memorize Richard Grafton's "Thirty days hath September . . ." or count on our knuckles, toes or what have you, to ascertain the date. Are you a Monday's child "fair of face"? Why the deuce are you celebrating your birthday on Friday? The answer: month-dates freely wander through the week.

Modern astronomers won't have anything to do with the calendar as we know it. A month by them equals 29 days, 12 hours, 44 minutes and 2.8 seconds; no more, no less. Consequently they use the Scaliger system, meticulously reckoning time in days back to 1 January, 4713 B.C.

What to do? You'll be using The World Calendar probably on 1 January, 1950, which is the target date The World Calendar Association has set for its inauguration. Every year is the same with The World Calendar. Also, there are four equal quarters; the first month of each quarter having 31 days, the other two, 30 days apiece. Moreover, the number of business days in each month is 26 days (plus Sundays). Perhaps the greatest boon to all is the fact that month-dates are always on the same weekdays. Consequently, the holidays do not behave like grasshoppers.

To total up to the correct number of days, namely 365, the day following 30 December is set aside as a year-end holiday; the same idea they had in Egypt 6,000 years ago.

Law-makers, financiers and industrial-

ists welcome with open arms a system whereby the four quarters mesh smoothly.

What about us? The World Calendar would allow the administration of this institution to adjust holidays uniformly so that they would not break up the teaching week. The advantages of this cannot be overlooked. Registration dates, exam schedules, football schedules could be figured out once and for all with obvious benefits for the student as well as the faculty.

In the United States Congressman Mundt of South Dakota and Congressman Kee of West Virginia have done much to advance the work of The World Calendar Association. Fourteen nations have already endorsed its adoption inasmuch as no radical changes have been made. (Love-lorn females still have their chance on leap years because a 31 June has been tacked on every fourth year to become another world holiday.) There's only one thing that may block the calendar's adoption and that is inertia. Inertia is a person's, nation's, or world's reluctance to beat a new path regardless of logic. If you want more information on the calendar, write to The World Calendar Association, 630 Fifth Avenue, New York City. If you want to use it, write your Congressman.

Reform of the Calendar

By LUIS MONTERO Y TIRADO

From *Rotario Peruano*, Lima, Peru, 28 July, 1947, (Translation)

AS it has progressed, humanity has changed its calendars. In spite of the tremendous advances in scientific knowledge since the Middle Ages, the great changes in modern life require a readjustment in the Gregorian calendar that cannot be delayed any longer. In view of the fact that in the past each calendar has been initiated by a nation or an ecclesiastical authority and, when adopted, it has been put in force gradually and with intervals of many years, it is preferable that because of this past experience we proceed on the basis of international agreements and the joint action the United Nations makes possible.

Join in This Battle

From *The Charleston Evening Post*, S. C., 29 December, 1947

IN at least 31 nations there are organizations engaged in a growing battle against inertia and apathy which stand in the way of a reform the world vitally needs.

The roll of these nations shows that there is at least one important matter on which democracies and totalitarian countries might agree.

It is calendar reform; the abandonment of the now outmoded system of reckoning the months, quarters and years and instituting in its place a system whose advantages are manifold.

The proposed World Calendar, which is the only plan receiving serious attention, has already won the approval of 14 governments. If the United States should give its approval, the likelihood is that the remainder of the world would fall in line.

The proposed calendar would obviate the confusion and irregularity of the present one. Its advocates claim it impartially meets the needs of government, industry, agriculture, science, religion and social life. That ought to be perfectly obvious to anyone who is familiar with the proposed system, whose 12 months are so arranged that they equalize the quarters and half-years, and make the calendar perpetual, one that does not vary from year to year.

Every year would begin on a Sunday and end on a Saturday. As 1950 is the earliest year on which 1 January would coincide under the present and proposed calendars, it is hoped to effect the reform, through an international agreement, by that date.

The decision of the United States rests with Congress. Now before that body are bills in the House and Senate which would effect this country's approval. Those individuals and organizations favoring it should get in touch with their Senators and Representatives and so encourage them to action. As far as we know, there is little, if any, opposition to the change. Hence the problem is one of overcoming a combination of inertia and apathy.

FROM THE MAIL BAG

The adoption of The World Calendar should eliminate many trying calculations.—F. Noury-Esfandiary, Minister and Charge d'Affaires ad Interim, Iranian Embassy, Washington, D. C.

The World Calendar makes a correction that is long, long overdue. It is the employment of a tool useful to all civilization; a tool that will strengthen man's hand, liberate his mind, and increase his efficiency. Science has discovered, genius has invented, and now it is the high privilege and responsibility of government to make available to our social order this useful and practical implement. This is a most propitious time for action, because it will give adequate advance notice of the change going into effect in 1950.—J. G. Lowery, Dean of Education, Muskingum College, New Concord, O.

To lose the opportunity of having your wonderful calendar in operation by 1 January, 1950, would be a calamity.—Edward J. Weber, Architect, Pittsburgh, Pa.

It was my privilege to be present at the Sales Executive Meeting and hear your discussion on a very unusual subject, "The World Calendar." As a result of this meeting many feel that your idea will be understood and we expect to be using The World Calendar as our time table before we leave this earth.—C. D. Archibald, Vice President, American Furnace Company, St. Louis, Mo.

I think you are doing an excellent service in your work for World Calendar reform.—H. J. Exley, Deputy Commonwealth Statistician, Commonwealth Bureau of Census and Statistics, Hobart, Australia.

Anticipated application of The World Calendar will provide a logical, simplified, streamlined and improved system long needed and long overdue. May The World Calendar in 1950 usher in a millennium and more of glorious living.—Maxwell C. LeVine, First Deputy Auditor, City and County of Honolulu, Hawaii.

I have asked both of our Senators and our Representatives from this District to support the Calendar Bill, which I understand is before Congress this session. Best wishes.—Dr. Wm. H. Gates, Head, Zoology Dept., La. State Univ., Baton Rouge.

I am fully in favor of your World Calendar plan—have been for a long time.—Dr. George L. Trager, University of Oklahoma, Norman, Okla.

I want you to know that I am heartily in favor of the proposed World Calendar and hope that it can be adopted, not only by the United States, but also by a majority of the United Nations. This is a matter for each nation to decide individually, but the English-speaking nations could do much to overcome any apathy among other nations by adopting a sane and sensible calendar. More power to you.—N. D. Rand, Wilmington, Del.

I am delighted with the prospect of having The World Calendar adopted before 1950. Apparently the time is ripe for world-wide cooperation on this non-controversial problem.—Hoyt D. Smith, Prin., Mamaroneck Junior High School, New York.

Personally, I very sincerely hope that The World Calendar may be adopted and go into effect on 1 January 1950, which is, of course, the ideal date.—S. W. Boggs, Special Adviser on Geography, Department of State, Washington, D. C.

My interest in a new calendar has been of long standing.—Dr. D. C. Cameron, Meteorologist, San Antonio, Texas.

Yes, I heartily favor The World Calendar.—Rt. Rev. S. Harrington Littell, D.D., Retired Bishop of Honolulu.

Yours is a campaign I'm interested in, and should like to keep abreast of the movement's progress. May I wish your splendid organization the very best success.—William L. R. Broun, Public Relations Director, New York City.

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